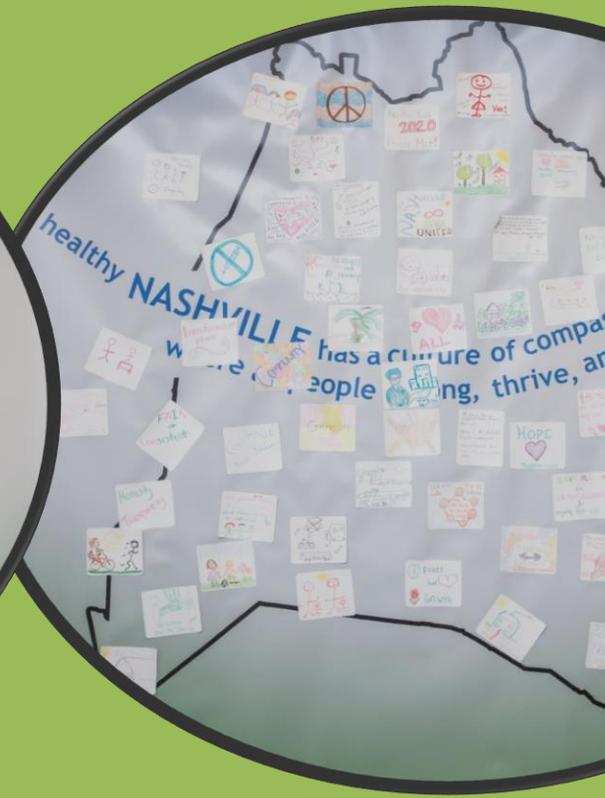
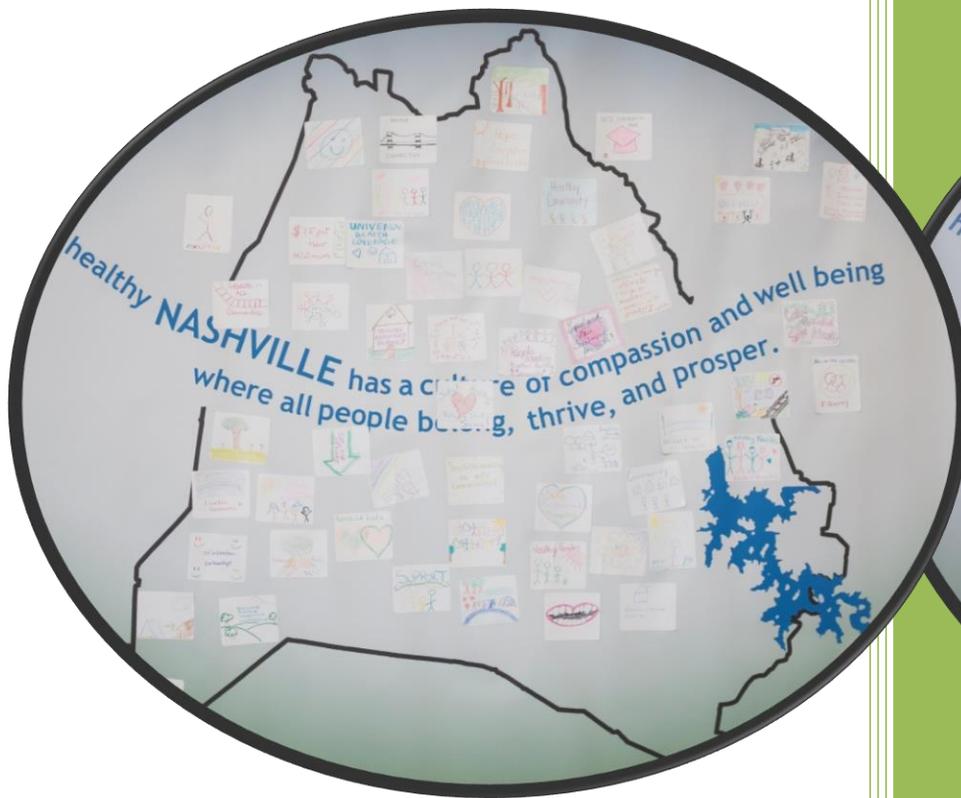


# 2018

## Comprehensive Community Health Assessment-Davidson County



Healthy Nashville Leadership Council

MAPP Core Team

November 2019

# TABLE OF CONTENTS

Executive Summary.....	2
Introduction.....	10
• Purpose/Objective	
• Methodology	
• Community Served	
• Collaborations and Consultants	
Vision Process .....	17
Health Needs and Assets.....	18
• Secondary Health Data	
Systems Reviews .....	57
• Forces of Change Assessment (FoCA)	
• Local Public Health System Assessment (LPHSA)	
Input from the Community.....	91
• Interviews of Community Leaders and Representatives	
• Community Listening Sessions	
• Intercept Survey	
• Healthy Nashville Summit	
Conclusion.....	101
• Identified Priority Health Needs	
• Limitations of Community Health Assessment	
References.....	105
Appendix.....	113
A. Acknowledgements	
B. Mobilizing for Action through Planning and Partnerships (MAPP) Background	
C. Healthy Nashville Leadership Council Executive Order	
D. Interviews of Community Representatives/Leader	
E. Community Listening Sessions	
F. Online Community Survey	
G. Community Health Care Resources	
H. Evaluation of 2015-2019 Community Health Improvement Plan	

## EXECUTIVE SUMMARY

Staff representing the Healthy Nashville Comprehensive Community Assessment process conducted and prepared this Community Health Assessment (CHA) during the 2019 fiscal year. This assessment of health needs and community assets assists in identifying the unmet health needs of the community and provides reference for each organization's community health improvement plan/implementation strategy. The CHA also works to align organizations' initiatives, programs and activities to improve the health of the community.

The Core Group members represent institutions in Nashville that require a health needs assessment by either varying accreditation bodies or by the Internal Revenue Service (IRS). The process is overseen by the mayoral-appointed Healthy Nashville Leadership Council (HNLC), which serves as the Steering Committee. Core Team Partners include the Metro Public Health Department, Matthew Walker Comprehensive Health Center, Ascension Saint Thomas, ConnectUsHealth, Vanderbilt University Medical Center, Neighborhood Health, and Metro Social Services. The partnering organizations are committed to improving the health of the community beyond the services each provides. It is this shared commitment and goal of a healthy community for all that brings the partnering organizations together. This shared commitment is captured in the vision statement created by the HNLC based on a community input process: *"A healthy Nashville has a culture of compassion, where all people belong, thrive and prosper."*

For the purposes of this survey, the community served was defined as Davidson County, Tennessee. Many factors were considered in defining the community, including:

- Region served by partnering organizations;
- Inclusion of areas that include the underserved, low-income and minority groups;
- Potential for collaboration/partnering with other organizations;
- Availability of health information for the area selected; and
- Location and service area of partnering hospitals.

The objectives of the CHA and subsequent agency-specific community health improvement plans/implementation strategies were to:

1. Provide an unbiased, comprehensive assessment of Davidson County's health needs and assets;
2. Use the CHA collectively to identify priority health needs in Davidson County for Saint Thomas Health, Vanderbilt University Medical Center, and the Metro Nashville Public Health Department to inform the development of community health improvement plans/implementation strategies.
3. Provide an objective assessment of the community, upon which all partnering organizations may continue collaborating to support and improve health within the county; and
4. Fulfill Internal Revenue Service regulations related to 501(r) non-profit hospital status for federal income taxes.
5. Fulfill Public Health Accreditation Board requirement for local public health department accreditation status.

The process included a review of secondary health data, a systematic review of existing community

agency reports, an online community survey, interviews of community representatives and leaders, community listening sessions, two public health systems assessments and a community health summit to review findings and discern unmet health needs. The collaborating team received input from a variety of public health experts.

## [Summary of Health Data, Systems Review and Community Input](#)

### *Health Data Summary*

#### *Demographic/Socioeconomic*

- Racially and ethnically diverse
- County is experiencing rapid growth
- Many residents benefit from higher educational attainment
- 17% live in poverty; 29% of children live in poverty
- Education, income/poverty and unemployment vary by race/ethnicity and geographic location within the county

#### *Social & Natural Environment*

- Violent crime rate is high
- Many residents (especially renters) are burdened by housing costs
- It is difficult for many in the community to access healthy food
- Rates of fast food establishments are rising
- 40% of residents live within ½ mile of a park

#### *Access to Health Care*

- There are 15 hospitals within the county
- Provider levels are similar to those across the nation
- 16.8% of residents do not see a doctor due to cost
- Uninsured rates are higher than the state and nation and concentrated in certain areas throughout the county
- 13.9% of residents live in Health Professional Shortage Areas

#### *Morbidity and Mortality*

- Heart disease and cancer are the top two leading causes of death
- Leading causes of death differ by race and gender
- Combined accidents, assaults, and suicide represent 11% of deaths
- Racial inequity in life expectancy (Black 73.5 years/White 78 years)

### *Birth Outcomes*

- Infant mortality and low birth weight rates are high and vary by race
- 60.7% of mothers are receiving adequate prenatal care
- 28.6% of mothers had at least one medical risk factor during pregnancy
- Teen pregnancy and birth rates continue to decline and vary by race

### *Preventive Care / Risk Factor Behaviors*

- Smoking rate remains higher than Healthy People 2020 goal
- High rates for overweight and obesity
- High School Youth:
  - 19.6% use any tobacco product
  - 36% are overweight or obese
- 20% of seniors (age 65 years and older) are not vaccinated for influenza/pneumococcal disease

### *Infectious diseases*

- Chlamydia and Gonorrhea rates are rising
- Sexually Transmitted Disease incidence rates vary
  - By Race/Ethnicity (higher among minorities)
  - By Age group (higher among ages 15-19)
- HIV rates remain higher than the state and the nation
- TB rate remains higher than the state with the Asian population having the greatest disparity

### *Mental & Emotional Health*

- On average, adults experience 4.4 poor mental health days per month
- 21% of adults have experienced mental illness in the past year
- Opioid prescribing rates are declining, but remain higher than the national average
- Drug overdose deaths remain high

## *Systems Review*

### *Forces of Change Assessment (FoCA)*

20 participants representing 16 organizations

Focus on identifying forces such as legislation and technology that could or will affect community health

Identified 26 high priority trends or forces through a facilitated prioritization process

### *Opportunities*

- Examine revenue streams
- Prevention-based approaches (investments, diversion programs)
- Importance of diversity of thought in solving system-wide problems

### *Threats*

- Institutional stress
- Increased costs
- Isolation
- Inefficient expenditures
- Individuals stop looking for services at all
- Loss of trust in government + community systems

### *Partnerships*

- Public/private
- Systems-based
- Schools
- Philanthropic organizations
- Places of worship
- “People living the experience”

## *Local Public Health System Assessment*

67 participants from 40+ organizations that represent the Nashville local public health system assessed the activities and capacities and how well the Ten Essential Services are being provided in Nashville

### *Strengths*

Our community ecosystem shows strength and expertise in diagnosing what is wrong, enforcing regulations, and developing plans and policies.

### *Progress*

Our community shows significant progress in educating and empowering the public about health and also evaluating our own progress with programs.

### *Opportunity*

Our community could get better in the areas of linking folks to care, coordination of care, building the next generation of public health leaders, and using research and innovation efforts more effectively.

## *Interviews of Community Leaders & Representatives*

23 interviews

Result highlights:

- Community Assets
  - Community (high resilience, diversity, and involvement)
  - Healthcare
  - Resources/Collaborative Work
  
- Community Concerns
  - Vulnerable Populations
  - Growth
  - Care Coordination
  
- Health/Health Care Concerns
  - Insurance/Affordability
  - Equity
  - Lifestyle/Behaviors
  
- Challenges/Barriers
  - Financial
  - Community Disconnect
  - Health Literacy
  
- Top Initiatives to address
  - Collaboration/coordination
  - Access to Healthcare
  - Social Determinants
  
- Common Themes
  - Refugees/Bilingual Challenges
  - Regional Issues
  - Vulnerable Populations

## *Community Listening Sessions*

6 locations/58 total participants

### Result highlights

- Community Assets
  - Strong community dynamic
  - Resource availability
  - Built environment
  - Cultural diversity
  
- Community Concerns
  - Transportation
  - Chronic stress
  - Challenges meeting basic needs
  - Opportunities and safe spaces for youth
  - Housing
  - Cost of childcare
  - Family/parent support
  - Violence/crime
  - Resources available but community not using or aware of them
  
- Health/Healthcare Concerns
  - Access to care, cost of care
  - Appointment wait times and access to health care providers
  - Access to affordable, healthy food
  - Emotional and mental health
  - Substance use and abuse
  - Fragmented, uncoordinated, unwelcoming health care delivery system
  
- Challenges/Barriers
  - Health inequity
  - Healthcare access
  - Population growth
  - Resource access
  - Living & working conditions
  
- Top initiatives to address
  - Health care access
  - Education/training and skill development
  - Housing
  - Accessible resources

## Identified Community Health Needs

The results of the data review, systems reviews, community interviews, listening sessions, and survey responses were presented to community representatives and leaders at a community health summit hosted by the Metro Public Health Department, Saint Thomas Health and Vanderbilt University Medical Center. The summit attendees reviewed the assessment findings then provided collective input into the needs and resources of the community.

The prioritized unmet health needs identified for Davidson County, Tennessee, by this CHA are:



The need for an equitable approach to addressing proposed health needs emerged as an issue throughout both quantitative and qualitative assessments, and by 2019 Healthy Nashville Summit attendees. The success of the stated health needs (access and coordination of resources, mental health and toxic stress, meeting basic needs and social determinants, and access and affordability of health care) will require a health equity lens that places strategic focus on vulnerable populations and deep understanding of the complexity of some health disparities.

The Healthy Nashville Leadership Council and the Assessment Core Team are grateful to those who have participated and partnered in this assessment.

This CHA is a joint publication of Metro Public Health Department, Ascension Saint Thomas Health and Vanderbilt University Medical Center. It will be made available to the public online and public comment is welcomed and encouraged. Additionally, this report will be used to guide the development of a Community Health Improvement Plan (CHIP) for Davidson County.

## INTRODUCTION

This Community Health Assessment (CHA) publication serves as the documented CHA for Metro Public Health, Ascension Saint Thomas Health, Vanderbilt University Medical Center, Metro Social Services, Matthew Walker Comprehensive Health Center, connectushealth and the Healthy Nashville Leadership Council for fiscal year 2019 for the community of Davidson County, Tennessee.

A Community Health Assessment (CHA) is conducted to provide an understanding of the state of health in a community and the social factors contributing to and influencing health in the area. The CHA will be used as a guide for development of community health improvement strategies.

With the passing of the Affordable Care Act in 2010, additional requirements for non-profit hospitals were implemented through the Internal Revenue Service. One of the requirements is for non-profit hospitals to conduct community health needs assessments (Internal Revenue Service, 2019). The assessments, performed at least every three years, should include input from the community and influence the hospital's implementation strategy for community benefit.

Public health departments are participating in a voluntary national accreditation program designed to improve and protect the health of the public by advancing and ultimately transforming the quality and performance of the nation's state, Tribal, local and territorial public health departments. (PHAB, 2019) Metro Public Health Department is currently seeking this accreditation standard which assesses the department's capacity to carry out the ten Essential Public Health Services, effectively manage the department and maintain strong and effective communication with the governing entity, the Metro Board of Health.

The periodic updating of assessments reflects changes in health status and factors over time and helps ensure ongoing improvement efforts are based on the current needs of the community. For 2019, Metro Public Health Department, Saint Thomas Health, Vanderbilt University Medical Center Metro Social Services, Matthew Walker Comprehensive Health Center, ConnectUsHealth and the Healthy Nashville Leadership Council forged a collaborative relationship to understand together the current health needs of Davidson County, Tennessee.

This updated assessment of unmet health needs will provide a basis for addressing the health of the county, and act as a reference for each of the partnering organizations' community health improvement plan/implementation strategy to ensure alignment with the community needs.

## PURPOSE/OBJECTIVE

The objectives of the CHA and subsequent community health improvement plans/implementation strategies were to:

1. Provide an unbiased, comprehensive assessment of Davidson County's health needs and assets;
2. Use the CHA to collectively identify priority health issues for partnering organizations' community benefit and community health improvement activities;
3. Provide an objective assessment of the community, upon which the partnering organizations may continue collaborating to support and improve health within the county; and
4. Fulfill Internal Revenue Service regulations related to 501(c)(3) non-profit hospital status for federal income taxes; and
5. Fulfill accreditation requirements related to PHAB (Public Health Accreditation Board) for the Metro Nashville Public Health Department.

## METHODOLOGY

Input from people representing the broad interests of the community, including those with expertise in public health, was obtained through face-to-face interviews, community listening sessions, and via an online community survey (distributed in English and Spanish). The collaborators also conducted a comprehensive review of relevant secondary data as well two public health systems assessments. Additionally, a report on the most recent results of the 2015-2019 Community Health Improvement Plan (CHIP) is included from the reports posted on healthynashville.org. Specifics of each method are described in depth in each corresponding section of the report.

## COMMUNITY SERVED

The community served for purposes of this needs assessment is defined as Davidson County, Tennessee. This geographic region is considered to fairly represent the community served by the partners, and includes the poor, vulnerable and underserved within the community.

In defining the community served for the CHA, the partnering organizations chose to select the entire geographic county/region as the focus of the assessment. Facts and circumstances considered included: region served by partnering entities; areas of populations that included the underserved, low-income, minority groups; potential for collaboration/partnering with other organizations; and availability of health information for the area selected. Maintaining definition at the county level allows for a more robust analysis of the community health needs. Each of the collaborating entities are in Davidson County, Tennessee, and do provide services for the residents.

## COLLABORATIONS AND CONSULTANTS

Metro Public Health, Saint Thomas Health, and Vanderbilt University Medical led the design, direction and implementation of the CHA. Saint Thomas Health (STH) and Vanderbilt University Medical Center (VUMC) participated in the CHA process on behalf of their non-profit hospitals and health systems.

The partnering organizations used the MAPP (Mobilizing for Action through Planning and Partnerships) process to guide their Davidson County CHA work. MAPP is a community-wide strategic planning process for improving public and community health; this framework helps communities prioritize public health issues, identify resources for addressing them, and act to improve conditions that support healthy living. The process encompasses four separate assessments that measure the health of the community in several ways.

The partnering organizations worked together to design, direct and conduct the assessments of the communities served. Representatives of the organization include those with special knowledge of and/or expertise in public health. MPH, STH, and VUMC had one community served which overlapped: Davidson County, TN. The partnering organizations collaborated and shared in the analysis of interview and community listening session results, as well as the review of the secondary data and two public health systems assessments.

Using MAPP, the partnering organizations also collaborated with members of the community to understand the current health needs of Davidson County, including organizations such as, but not limited to: Metro Social Services; Family and Children's Services; United Way of Nashville and the Family Resource Centers; Tennessee Department of Health; Juvenile Justice Center; Mayor's Office of Nashville; Metro Planning Department; Metro Parks Department; Metro Nashville Public Schools, Matthew Walker Comprehensive Health Clinic, ConnectUsHealth, Metro Arts, Healthy Nashville Leadership Council, mental health experts, law enforcement officers; and regional health council representatives.

While the partnering organizations collaborated with many community agencies and experts, hired consultants were not used during the CHA process.

## Description of Core Partners

### Metro Public Health Department

The mission of the Metro Public Health Department (MPHD) is to protect, improve and sustain the health and well-being of all people in Metropolitan Nashville. The vision of the Metro Public Health Department is "People creating healthy conditions everywhere."

The MPHD contributes to the health and safety of the city by working to:

- Identify, analyze and track public health conditions to help guide public health action;
- Provide leadership in efforts to make the city a healthier place;
- Efficiently deliver high-quality public health services;
- Advocate for and enforce policies and laws that promote health;
- Build partnerships that improve the reach and effectiveness of community action to improve health; and
- Respond to public health emergencies, including communicable disease outbreaks, terrorism and natural events.

### Saint Thomas Health and the Saint Thomas Health Hospitals

Saint Thomas Health (STH) is Middle Tennessee's faith-based, not-for-profit health care system united as one healing community. Saint Thomas Health is focused on transforming the healthcare experience and helping people live healthier lives, with special attention to the poor and vulnerable. The regional health system includes nine hospitals: Saint Thomas Hospital for Specialty Surgery, Saint Thomas Midtown Hospital and Saint Thomas West Hospital in Nashville, Saint Thomas Rutherford Hospital in Murfreesboro, Saint Thomas Hickman Hospital in Centerville, Saint Thomas DeKalb Hospital in Smithville, Saint Thomas Highlands Hospital in Sparta, Saint Thomas River Park Hospital in McMinnville, and Saint Thomas Stones River Hospital in Woodbury. A comprehensive network of affiliated joint ventures, medical practices, clinics and rehabilitation facilities complements the hospital services. Saint Thomas Health is a member of Ascension, a Catholic organization that is the largest not-for-profit health system in the United States.

Ascension is a faith-based healthcare organization dedicated to transformation through innovation across the continuum of care. As the largest non-profit health system in the U.S. and the world's largest Catholic health system, Ascension is committed to delivering personalized, compassionate care to all persons with special attention to those who struggle the most. For more information, visit [www.ascension.org](http://www.ascension.org).

Saint Thomas Health is committed to providing care to the communities it serves with attention to the poor and vulnerable. STH's mission provides a solid foundation and guidance for its work as a caring ministry of healing, including its commitment to community service and to providing access to quality healthcare for all. The STH Mission, Vision and Values are the key factors influencing their approach

and commitment to addressing community health needs through their community benefit activity.

#### [Vanderbilt University Medical Center](#)

Vanderbilt University Medical Center (VUMC) is an academic not-for-profit healthcare system in Middle Tennessee. The regional system includes four (4) hospitals located in Nashville, TN: Vanderbilt Adult Hospital; Monroe Carell Jr. Children's Hospital at Vanderbilt; Vanderbilt Psychiatric Hospital; and Vanderbilt Stallworth Rehabilitation Hospital. A comprehensive network of clinics and medical services complement the hospital services.

Vanderbilt Adult Hospital is the region's Level 1 Trauma Center and Burn Center. It provides emergency room services and comprehensive inpatient and outpatient care, including transplantation and oncology services. Monroe Carell Jr. Children's Hospital at Vanderbilt is the region's level 1 pediatric trauma unit. It is a teaching and research facility and provides comprehensive inpatient and outpatient care including neonatal services.

Vanderbilt Psychiatric Hospital provides an age-appropriate, restorative environment for mental health care. In addition to adult care, the Vanderbilt Psychiatric Hospital is the only inpatient mental health provider for young children in Middle Tennessee and offers highly specialized services for children and teens.

Vanderbilt Stallworth Rehabilitation Hospital, established in 1993, is an 80-bed inpatient rehabilitation hospital that offers comprehensive inpatient rehabilitation services designed to return patients to leading active and independent lives.

#### [Healthy Nashville Leadership Council](#)

The Healthy Nashville Leadership Council (HNLC) was originally created in 2002 through Executive Order by Mayor Purcell to mobilize community initiatives to achieve improvements in health, specifically to address underlying contributors to chronic diseases. The HNLC is responsible to serve as the Steering Committee or oversight body for the CHA process. The current work of the Council is outlined in the 2015-2019 Healthy Nashville Community Health Improvement Plan (CHIP). The HNLC is supported by the MPHD.

#### [Matthew Walker Comprehensive Health Center](#)

Matthew Walker Comprehensive Health Center (MWCHC) is a federally qualified health center (FQHC) serving the Nashville, Clarksville and Smyrna communities. The health center serves approximately 17,000 patients per year providing primary care, oral health, behavioral health, radiology and mammography services as well as pharmacy, social services and case management. The mission of MWCHC is to provide quality health care, health education and to promote wellness. In addition to the clinical services, MWCHC provides a host of education and community-based programs.

### Metropolitan Social Services

It is the mission of Metropolitan Social Services to empower Davidson County residents to achieve economic stability and social wellbeing. MSS provides a range of services to help Davidson County residents who are in need. These services promote positive change for individuals and families in times of crisis and economic hardship. The services include: Information and Referral, Counseling, Case Management, Life Management Skills, Homeless Services, Nutrition, Burial Services, and Strategic Planning & Research.

### ConnectUsHealth

ConnectUsHealth is a non-profit community healthcare organization founded on the values of Compassion, Wellness, Community and Culturally Sensitive Care. Staff help manage the healthcare of the entire family and community, including individuals who are underinsured or lack insurance. ConnectUsHealth has four locations across Davidson County providing Primary Care, Behavioral Health, and Women's Health services. They are dedicated to providing affordable, high quality healthcare that is designed around the patient and their healthcare needs, utilizing the Patient-Centered Medical Home (PCMH) model of care which allows for personalized care plans, support for better understanding and monitoring of prescription medications, provision of tailored healthcare coaching and advice, and creating stronger relationships with the healthcare team and other community resources.

## VISION

Following the organization process, the first step in the CHA process was to set a vision for the work. Collaborative partners and community members determined a focus, purpose and direction for the CHA process that resulted in a shared vision that created a common understanding of what the community should look like in three to five years. A survey of the Nashville community was conducted asking the following 3 questions:

1. What does a healthy Nashville/Davidson County mean to you?
2. What are important characteristics of a healthy Nashville/Davidson County for all who work, learn, live, and play here?
3. Five years from now, what would we want the local newspaper to say about the health of Nashville/Davidson County?

The survey was administered via Survey Monkey and in paper versions to the Nashville community. 125 English and 26 Spanish online responses were received. 215 paper survey responses were received from clients in the following clinic locations: Lentz Public Health Center, East Nashville Public Health Center, South Nashville WIC Nutrition Center, Woodbine Public Health Center, Metro Animal Care and Control, Siloam Health, and Room at the Inn. A qualitative analysis of a random sample of the responses was conducted to complete the Visioning process. The resulting Vision statement provided guidance to the community throughout the assessments: ***A healthy Nashville has a culture of compassion and well-being where all people belong, thrive and prosper.***

## HEALTH NEEDS AND ASSETS

To understand the health needs and assets of the community, the CHA process included a systematic review of existing reports, a review of secondary health data, an assessment referred to as the Community Health Status and primary input from the community, an assessment referred to as Community Themes and Strengths. Two separate public health systems assessments were also conducted. Community input was obtained through interviews of community representatives and leaders, online community survey, community listening sessions, and a community meeting to review findings and discern unmet health needs.

### Community Health Status (Secondary Data)

In identifying the health needs of Davidson County, the partnering team reviewed publicly available secondary data for the following health indicator topics: demographics and socioeconomic status, social and natural environment, access to health care, morbidity/mortality, birth outcomes, preventive care/risk factors behaviors, infectious disease, and mental health.

Social determinants are the conditions of communities within which people live that affect their health and well-being and include housing, crime, poverty, education, discrimination, and others. Social determinants are included in assessments of health and well-being. Addressing the social determinants of health through community building and improvement initiatives is a key component in improving the contributing factors that determine the health of the community. The partnering organizations, therefore, also reviewed indicators of health related to social determinants as part of this assessment.

A result of the review of secondary health data follows:

### Background & Methodology

The Community Health Status Committee, a diverse group of epidemiologists, academics, researchers, and public health practitioners, met over the course of six months to answer the overarching Community Health Status Assessment questions:

- How healthy are our residents?
- What does the health status of our community look like?

To answer these questions, the partnering organizations reviewed publicly available data and created an initial database of over 800 indicators. The committee ascertained that the indicators were in sync with the recommendations from the Catholic Health Association, Centers for Disease Control and Prevention, and National Association of City and County Health Officials. The available

indicators were categorized according to the 12 categories recommended in the Mobilizing for Action through Planning and Partnership (MAPP) guide:

1. Demographics
2. Socioeconomic Status
3. Social Determinants of Health Inequities
4. Access to Health Care
5. Behavioral Risk Factors
6. Morbidity & Mortality
7. Maternal & Child Health
8. Mental Health
9. Environmental Factors
10. Infectious Disease
11. Sentinel Events
12. Quality of Life

Once the indicators had been categorized, the committee prioritized the indicators through a consensus multi-voting process which included three rounds. Using this list of indicators, the committee members pulled the most recent data and wrote the associated data story. The final list of indicators was prioritized using the Hanlon Method (NACCHO, n.d.), scoring for:

- Population affected
- Seriousness of indicator
- Feasibility of addressing within the next 3-5 years

This final prioritization process led to the indicators that were chosen by the committee to show the health status of Davidson County. These measures reflect the major elements of health and quality of life in Nashville.

## Demographics and Socioeconomics

As of 2017, Davidson County was home to approximately 691,000 individuals. It is a young county with a median age of 34, compared to the state (38) and nation (37). Seniors (persons aged 65+) consist of 11.9% of the population. Davidson County is more racially and ethnically diverse than both the state and nation with just over half (56%) identified as White, 27% identified as African-American or Black, 4% as Asian, and 3% as “more than one race.” There is a high percentage of residents that are Hispanic (10%) or speak a language other than English at home (15.7%). This is higher compared to the state (7%) but, is lower when compared to the nation (21.3%) (U.S. Census Bureau, 2017).

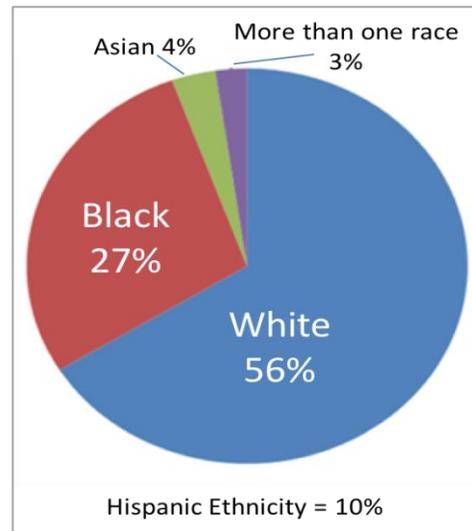


Figure 1: Davidson Demographics, Census Bureau (2018).

Davidson County is experiencing rapid growth with a 10.3% increase in population between 2010 and 2017 which is two times faster than the state. There is an estimated 15% increase in population and a 22% increase in jobs between 2015 and 2025 (Nashville Metro Planning Organization, 2019).

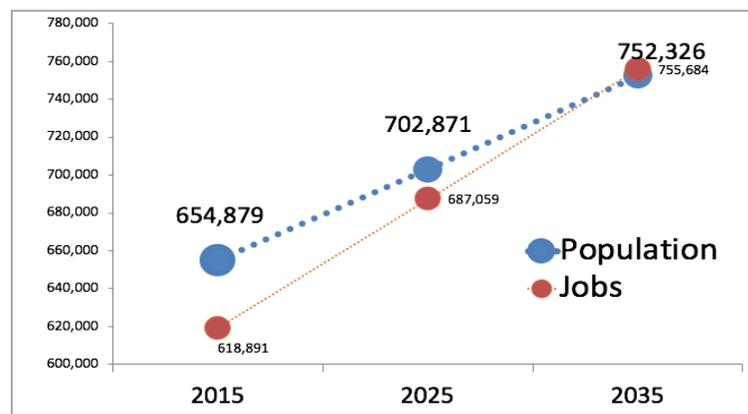
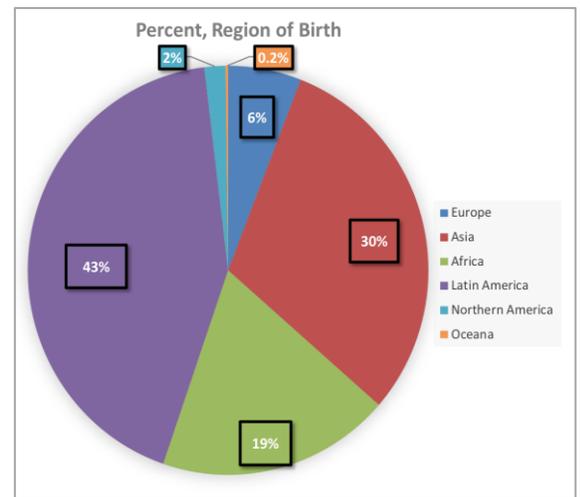


Figure 2: Davidson County growth trends, Nashville Metro Planning Organization (2019).

About 12% (84,672) of residents in Davidson County are foreign-born, a 2% increase from 2007. Foreign-born is someone born outside of their country of residence. Foreign-born can be non-citizens, naturalized citizens of the country in which they live, or citizens by descent, typically through a parent. **Figure 3** shows that the largest portion of these residents are from Latin America (43%) followed by Asia (30%), and Africa (19%). Of these foreign-born residents, 16.7% speak a language other than English at home and 8.8% reported speaking English less than very well (U.S. Census Bureau, 2017).

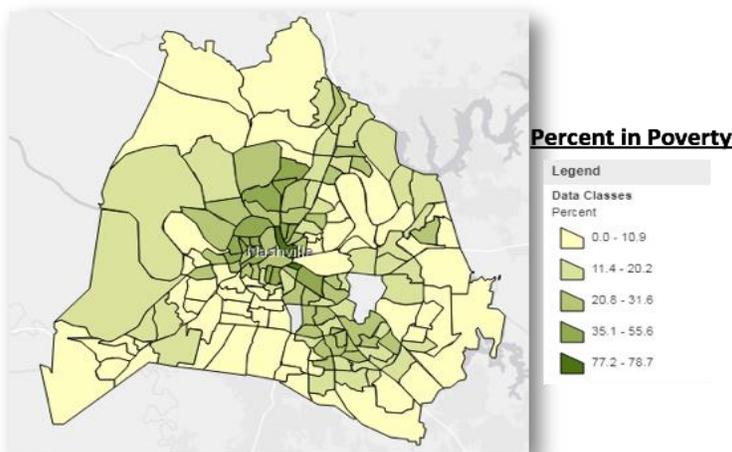


**Figure 3:** Foreign-Born Region of Birth, US Census Bureau (2017).

### Poverty

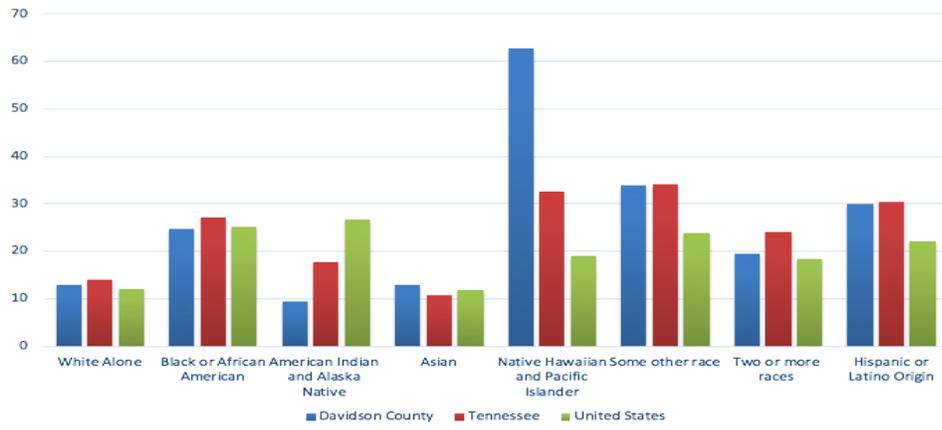
Poverty is one of the most critical indicators of future health and well-being according to leading health agencies such as the World Health Organization (WHO). Poverty creates barriers to accessing resources including health services, healthy food, and other necessities that contribute to health status.

Federal Poverty Level (FPL) is a measure of income used to determine poverty status. In 2018, the FPL was \$12,140 for an individual and \$25,100 for a family of four. 16.9% of Davidson County residents live in poverty; higher than both the state (16.7%) and the nation (14.6%). Poverty is more prevalent in some geographic areas of the county as seen in Figure 4, indicating areas with highest rates of poverty (~78.7%).

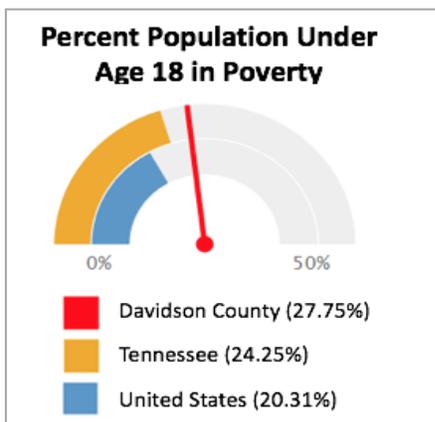


**Figure 4:** Davidson County Percent in Poverty, US Census Bureau (2017).

**Figure 5** demonstrates how poverty can vary by race. Native Hawaiian and Pacific Islanders (62.7%) have the highest percent of poverty in Davidson County, followed by residents who identify as some other race (24%) and Hispanic or Latino Origin (29.9%). In Tennessee, individuals that identify as some other race have the highest percent of poverty (34.2%) followed by Native Hawaiian and Pacific Islanders (32.7%). In the nation, American Indian and Alaska Natives have the highest percent of poverty (26.8%) followed by Black or African Americans (25.2%) (U.S. Census Bureau, 2018).



**Figure 5:** Poverty by Race, US Census Bureau (2018).



**Figure 6:** Children in Poverty, Community Commons (2018).

The challenges of poverty also extend to children, with 27.75% living in poverty. This equates to more than 37,000 children in Davidson County. Davidson County has more children living in poverty when compared to the state (24.25%) and the nation (20.31%) (Community Commons, 2018).

## Education

Educational attainment is linked with improved health behaviors, longer life, and improved health outcomes. County Health Rankings states “better educated individuals’ live longer, healthier lives than those with less education, and their children are more likely to thrive.”

In Davidson County, 12.2% of the population over the age of 25 does not have a high school diploma; this is lower

than the state (13.5%) and similar to the nation (12.7%). These rates also vary by geography and race shown in **Figure 7**. In Davidson County, 9.77% of Whites do not have a high school diploma compared to 14.4% of African Americans.

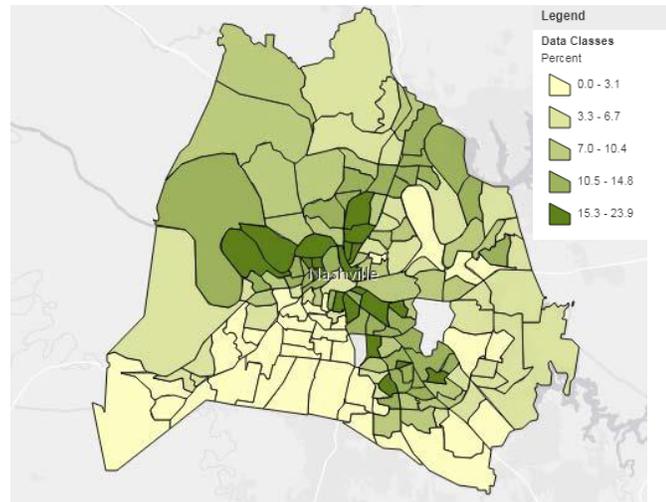
80.1% of high school students in Davidson County graduated on time in 2017, which is lower than the state (89.1%) and the nation (84%) (The Annie E. Casey Foundation , 2017).

**Figure 8** shows that the 2017 county rate decreased 1.5% from 2015; while state and national rates continue to increase.

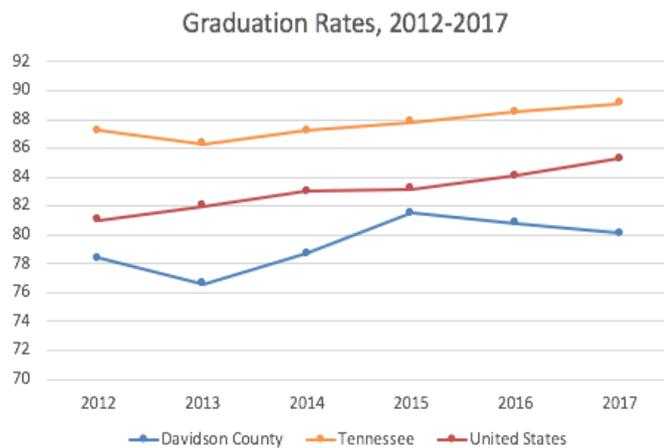
38.5% of residents in the County have a bachelor’s degree or higher. (U.S. Census Bureau, 2018)

## Employment

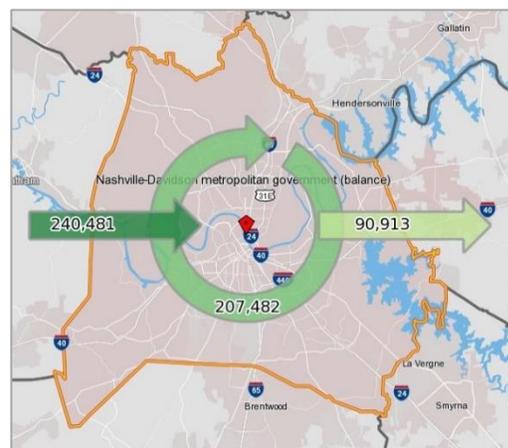
97% of Davidson County working age adult residents are employed. There are approximately 619,000 jobs offered within the county. Many people enter and leave



**Figure 7:** Educational Attainment by geographic area, US Census Bureau (2018).



**Figure 8:** Graduation Rates, National State Center for Education Statistics (2018).



**Figure 9:** Davidson OnTheMap, US Census Bureau (2018).

Davidson County each day for work purposes, ~240,000 commuting in and ~91,000 commuting out (Figure 9) (U.S. Census Bureau, 2018).

Figure 10 depicts where these jobs are and where commuters travel for work. The darker purple highlights areas with the highest concentration of jobs in the region (Davidson County outlined in orange) (Nashville Metro Planning Organization, n.d.).

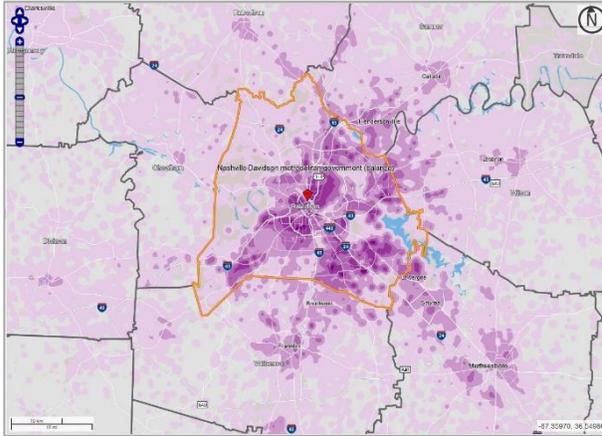


Figure 10: Employment Forecast, Nashville Metro Planning Organization (2018).

Davidson County continues to experience job growth and low unemployment (2.6%) relative to the state (3.5%) and the nation (4.2%) (U.S. Census Bureau, 2018).

## Health Status

### Life Expectancy

Life expectancy is defined as the average length a person is expected to live and is considered a good measure of a population's general health. In Davidson County, the estimated overall life expectancy is 77.3 years which is higher than the state (76.4). Life expectancy also varies when we look closer by gender, race, and location. Female life expectancy is 80.1 years compared to 74.3 years for males.

In Davidson County, African Americans have a life expectancy of 73.5 years, while Whites have a life expectancy of 78 years. Figure 11 highlights the differences in life expectancy by census tracts within the county. The darkest areas have the highest life expectancy of between 81-87 years, while the lighter gray areas have the lowest life expectancy of 66-71 years. This is a 15-year difference for residents who live only a few miles apart. These variations are

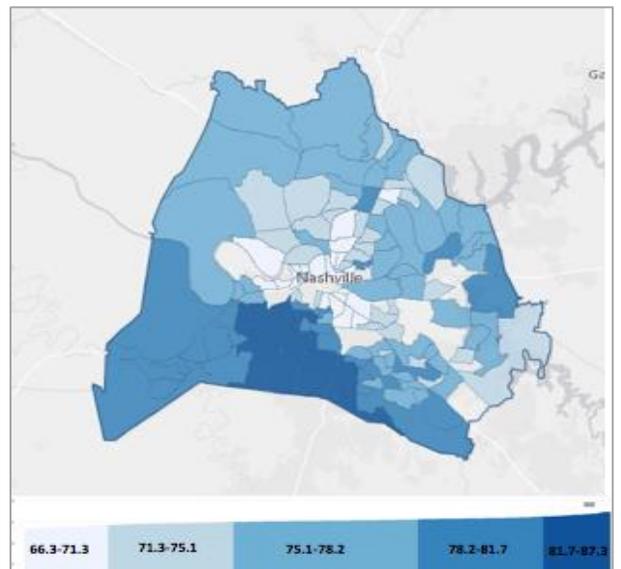


Figure 11: Davidson County Life Expectancy, Healthy Nashville (2019).

often caused by differences in public health infrastructure, access to medical care, and the social determinants of health. (Healthy Nashville, 2019)

## Social Determinants of Health

According to the World Health Organization, the circumstances “in which we are born, grow, live, work, and age” are called Social Determinants of Health, and these conditions are related to the “distribution of money, power, and resources” within a community. “The social determinants are mostly responsible for health inequities - the unfair and avoidable differences in health status seen within a community.” In addition to factors like education, social determinants can encompass the social environment, the physical environment, resources available in communities, economic opportunity, food access, and more,” (World Health Organization, n.d.).

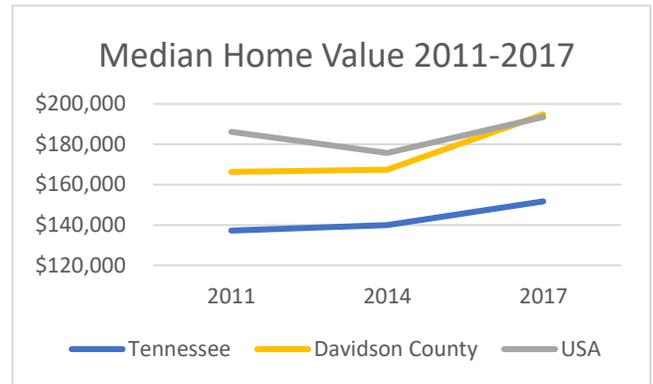
## [Housing](#)

There are 273,497 occupied housing units in Davidson County, and average household size is 2.47 people for owners and 2.32 people for renters, which is lower than the state (2.57 people for owners, 2.45 people for renters) and the nation (2.7 for owners and 2.52 for renters) (U.S. Census Bureau, 2018). County-wide, 81.3% of residents live in the same house as one year ago, compared to 85.4% in the nation and 85.2% in the state. This indicator helps describe “residential stability and the effects of migration” within a community, (U.S. Census Bureau, n.d.).

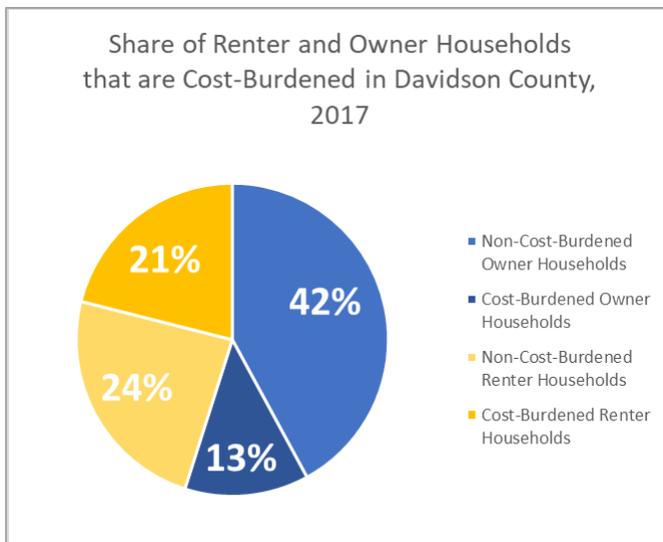
Poor quality housing can contribute to the risk of injury and to other illness due to poor maintenance, leaks, toxic factors in the environment (such as lead), increased risk of infestation and contagious disease through overcrowding, and psychological distress. Furthermore, a shortage of affordable housing can put families under intense stress. According to the Robert Wood Johnson Foundation, “The lack of affordable housing affects families’ ability to meet other essential expenses, placing many under tremendous financial strain. High housing-related costs place a particular economic burden on low-income families, forcing trade-offs between food, heating and other basic needs. One study found that low-income people with difficulty paying rent, mortgage or utility bills were less likely to have a usual source of medical care and more likely to postpone treatment and use the emergency room for treatment. Another study showed that children in areas with higher rates of unaffordable housing tended to have worse health, more behavioral problems and lower school performance.” (Robert Wood Johnson Foundation, 2011).

**Figure 12** shows that for the seven-year period 2011-2017, median home values in Tennessee increased by about 10.5%; in the nation, 3.9%; and in Davidson County, 17.1%. This jump in average value went from \$166,300 to \$194,800, which is just above the national median home value of \$193,500 (U.S. Census Bureau, 2018).

Cost-burden “is the housing characteristic linked most closely with instability and the risk of homelessness” (City of Murfreesboro Community Development Department, 2015). According to the U.S. Department of Housing and Urban Development, families who pay more than 30 percent of their income for housing are considered cost burdened and may have difficulty affording necessities such as food, clothing, transportation and medical care (U.S. Department of Housing and Urban Development, n.d.).



**Figure 12:** Median Home Value, US Census Bureau (2018).



**Figure 13:** Cost-Burdened Renters & Owners, US Census Bureau (2018).

**Figure 13** shows the share of homeowners versus renters in Davidson County. Of the 273,497 occupied housing units in the county as of 2017, 54.4% were owner-occupied and 45.6% were renter-occupied. 13% of owner households are cost-burdened while 24% of renters are cost burdened. Between renters and owners, 34% of Davidson households overall are cost-burdened (U.S. Census Bureau, 2018).

**Figure 14** shows the number and types of building permits the county issued over the four-year period of 2015-2018. The largest share, at around 37%, is for new residential buildings (13,231), speaking to the demand for housing the county has experienced in recent years (Metropolitan Government of Nashville and Davidson County, 2018).

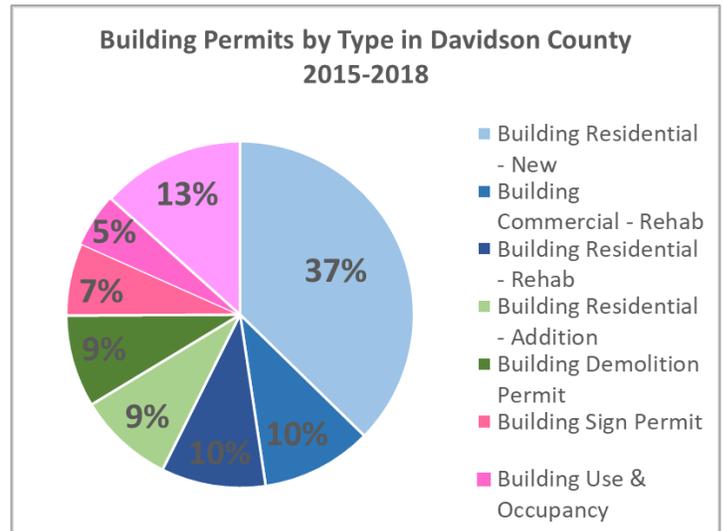
[Homelessness](#)

The demand for more housing has exacerbated the homeless situation in the county, forcing more low-income residents to the periphery or out of the county entirely with lower access to jobs, transportation, and services, which are concentrated in the urban core. The 2018 Point-in-Time homeless count, which took place January 25-26, 2018, counted 2,298 individuals who are homeless in Davidson County, including those both sheltered (1,682) and unsheltered (616) (Metropolitan Development and Housing Agency, 2018).

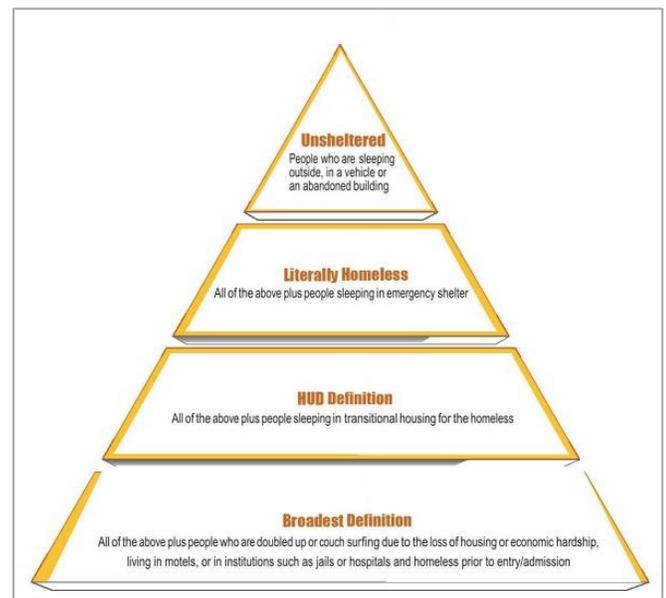
The Point-in-Time count is one measure of homelessness, but it does not count those who meet the broadest definition of homelessness, which includes those who are doubled up with friends or family, couch surfing, living in motels, or who are in jails or hospitals but were homeless prior to admission and likely to remain so following discharge, making this a low estimate by many counts (Metropolitan Development and Housing Agency, 2018).

There may also be school students not included in this number who meet the definition of homeless. Homeless youth is defined as youth who 'lack a fixed, regular, and nighttime residence' or an 'individual who has a primary nighttime residence that is:

- a) a supervised or publicly operated shelter designed to provide temporary living accommodations;
- b) an institution that provides a temporary residence for individuals intended to be institutionalized including welfare hotels, congregate shelters, and transitional housing for the mentally ill;
- c) a public or private place not designed for, or ordinarily used as, a regular sleeping accommodation for human beings. This definition includes both youth who are unaccompanied by families and those



**Figure 14:** Davidson County Building Permits, Metro Government (2018).



**Figure 15:** Nashville MDHA. (2018).

who are homeless with their families” (Youth.Gov, n.d.).

## Transportation

The built environment and transportation options affect people’s health. A robust transit system ensures people can easily access essential services they need to support health, such as groceries, employment opportunities, and medical offices. Active transit (in the form of walking, biking, and taking public transportation) encourages movement and physical activity. Public transportation can also help to improve air quality by taking individual cars off the roads and can help reduce stress due to traffic. Better transit options can also alleviate the burden of long solo commutes to work, and reduced commutes can offer people more social and family time, which supports mental health. Finally, well-designed transit options can support equity by bringing more options within reach of

vulnerable populations (Centers for Disease Control & Prevention, 2014).

Davidson County is served by the *WeGo* Public Transit service, whose low-cost fares and multiple routes serve as a primary means of transportation for many. These routes are concentrated in the urban core, meaning those on the periphery of the county have little to no access to public transit, making much of Davidson County car-dependent. **Figure**

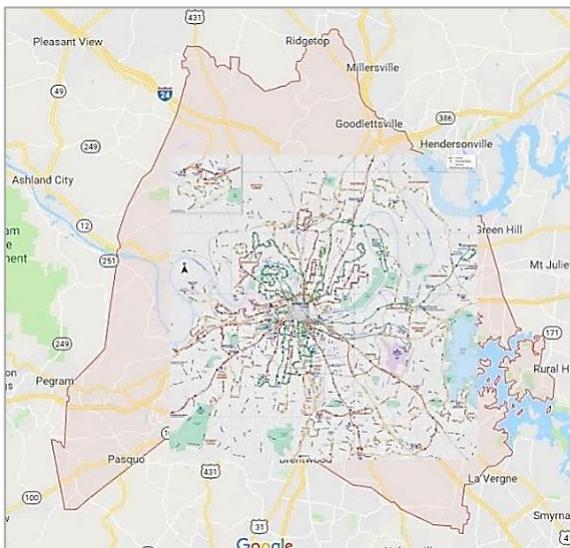


Figure 16: Bus Routes in Davidson County, WeGo Public Transit (n.d.).

16 is adapted from *WeGo* bus routes.

On average, 6.8% of occupied housing units (or 18,672 units) have no vehicle available. **Figure 17** shows where in the county households without vehicles are concentrated by census tract. On the periphery of the county, there are census tracts where as many as 16% of households have no vehicle access and no public transit access (U.S.

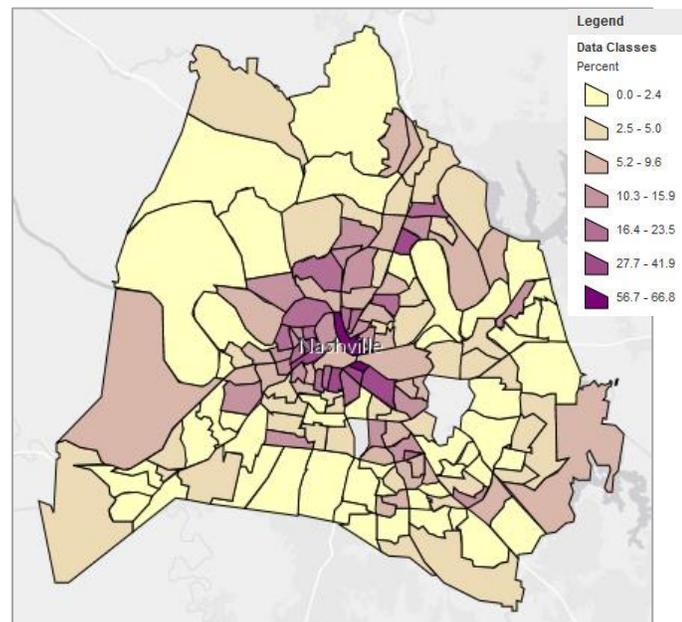


Figure 17: Households without a vehicle, US Census Bureau (2018).

Census Bureau, 2018).

In Davidson County, 80% of workers drive alone to work (University of Wisconsin Population Health Institute, 2018) while 2.2% take public transit and another 2.2% walk or bike to work (U.S. Census Bureau, 2018).

Across Tennessee, 4.5% of walking and biking trips are at least 10 minutes long, indicating sustained exercise. This puts Tennessee in the 5<sup>th</sup> percentile nationwide for active transit that represents sustained exercise (U.S. Department of Transportation, n.d.)

### Food Access

The built environment and access to transportation also affect the choices people can make regarding what they eat. Lower-income and rural neighborhoods are often saturated in fast food restaurants and other unhealthy options, while facing low access to groceries and other markets that carry fresh produce and other options that support healthy choices (Robert Wood Johnson Foundation, n.d.).

Overall, 19.5% of Davidson County's low-income population also faces low food access, "defined as living more than ½ mile from the nearest supermarket, supercenter, or large grocery store" (Community Commons, 2018). **Figure 18** shows where in the county people face food insecurity. The shading indicates the percentage of the low-income population in each census tract also has low healthy food access. In some geographies, up to 100% of the low-income population struggles to access fresh food (United States Department of Agriculture Economic Research Service, 2017).

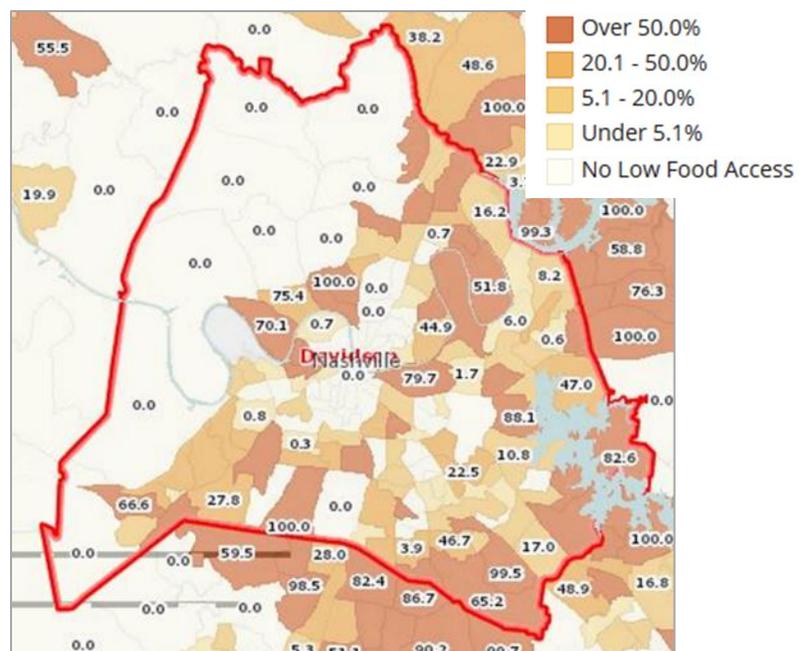


Figure 18: Food Access by Census Tract, US Dept. of Agriculture Economic Research (2017).

In terms of access to fast food, Davidson County exceeds both the state and the nation with a rate of 108.83 fast food establishments per 100,000 population as of 2016 (Community Commons, 2016).

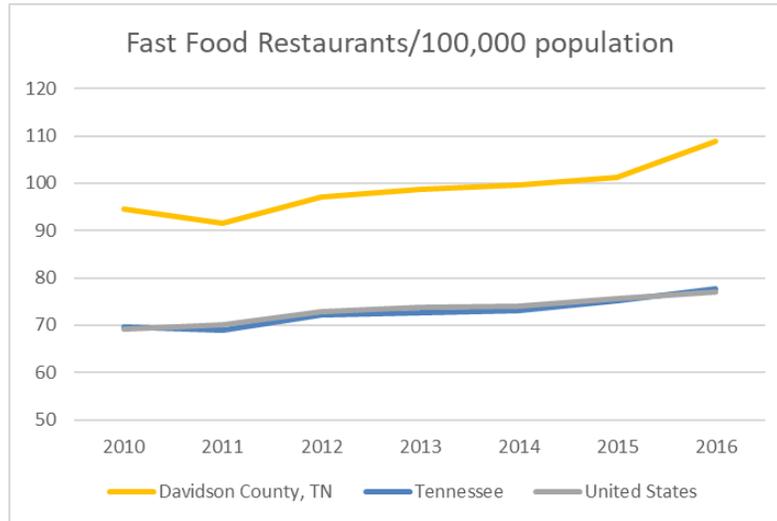


Figure 19: Fast Food Restaurants per 100,000 Population, Community Commons (2019).

Figure 19 shows this rate has risen steadily over the last

several years. Studies have shown that an environment rich in fast food options is linked to a higher likelihood of obesity and diabetes for residents and students who live and study nearby (Office of Disease Prevention and Health Promotion, 2019).

#### Built Environment and Parks Access

The built environment affects opportunities to be healthy through access to parks and green spaces where residents can exercise, children can play, and the community can convene. According to the National Recreation and Park Association, “Numerous empirical studies have investigated the association between green space, parks and physical activity behavior. A majority of these studies reveal evidence of positive correlations between park access, park use and physical activity levels. Consequently, the availability of park and recreation resources and easy, safe access to them is a promising avenue to encourage increased levels of physical activity in all people.” However, this report also notes that several factors influence park usage, including easy access to parks (meaning that people who can walk to a park are much more likely to use it), disparities in park distribution and location (there tend to be fewer parks in low-income and minority areas, and higher park acreage is associated with increased levels of physical activity), what types of facilities are available in the park, and the quality of park maintenance (National Recreation and Park Association, n.d.).

According to Davidson County’s Metro Parks Department, “there are over 12,000 acres of open space, including 108 Parks and 19 Greenways” in the county as of 2018. The map illustrates where in the county parks and green spaces are located. When this map was made in 2014, roughly 40% of Davidson County’s census block groups lived within ½ mile of a park (indicated by the orange-shaded area on the map). Metro Parks’ goal is to have every Davidson county resident living within ½ mile of a park (Metro Government of Nashville & Davidson County, 2018).

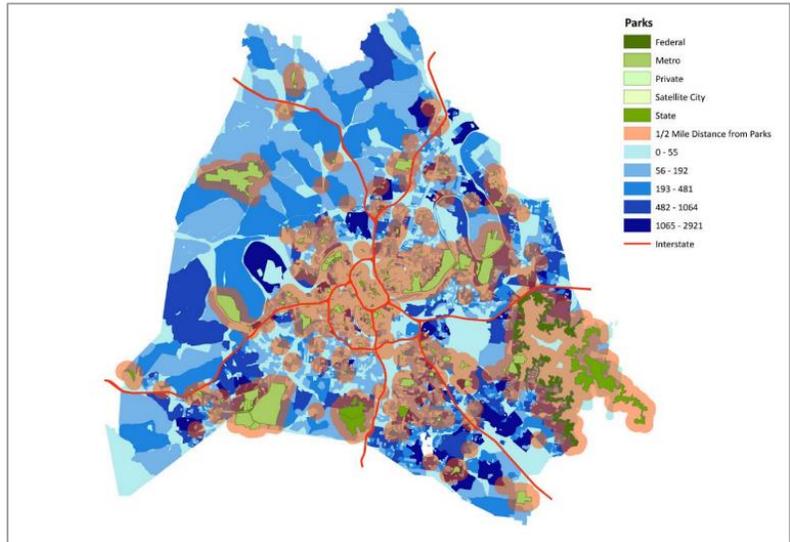


Figure 20: Nashville Parks, Metro Government of Nashville & Davidson County (2018).

### Violence

“Violent crime includes homicide, rape, robbery, and aggravated assault” (Community Commons, 2018). Safety is a social determinant that affects inequities in health outcomes. Indicators include reduced life expectancy due to gun violence, residual trauma from witnessing violent events around one, or reduced likelihood to exercise due to fear of violence (Office of Disease Prevention and Health Promotion, 2018).

Davidson County has a rate of 1,111 violent crime offenses reported by law enforcement/100,000 residents. This local rate is much higher than both the state at 611 and the nation at 380 (Community Commons, 2018).

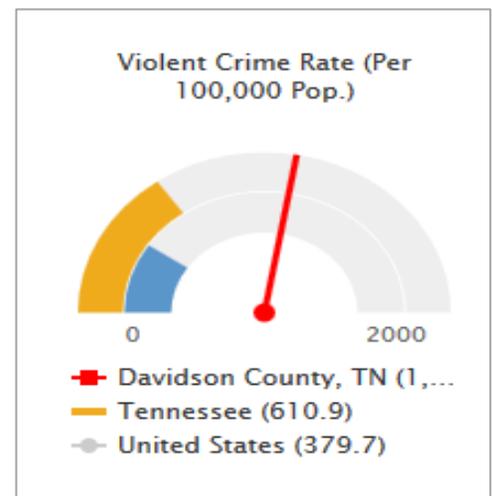


Figure 21: Violent Crime Rate per 100,000 Population, Community Commons (2018).

### Child Abuse & Neglect

Research has shown that child abuse and neglect have long-term ramifications, affecting a child’s physical, psychological, and behavioral development into adulthood and creating lasting impacts throughout society (Children’s Bureau, n.d.).

Substantiated child abuse and neglect cases in Davidson County per 1,000 children have declined significantly over the last several years from 7.3 cases per 1,000 children in Davidson County in 2008 to 4.1: 1,000 children in 2017, reaching a low in 2013 at 3.8: 1,000. The state’s rate in 2017 was 4.7: 1,000 (The Annie E. Casey Foundation, n.d.).

## Seniors

The Tennessee Commission on Aging and Disability projected in 2019 that the senior population in Davidson County would increase 39% between 2019 and 2030. This means that agencies serving this population will need to strategically build capacity and resources to meet a growing demand for their services over time, including in-home support, nutrition, transportation, and others, to ensure this population can enjoy the highest possible quality of life into older adulthood (Tennessee Commission on Aging and Disability, 2017).

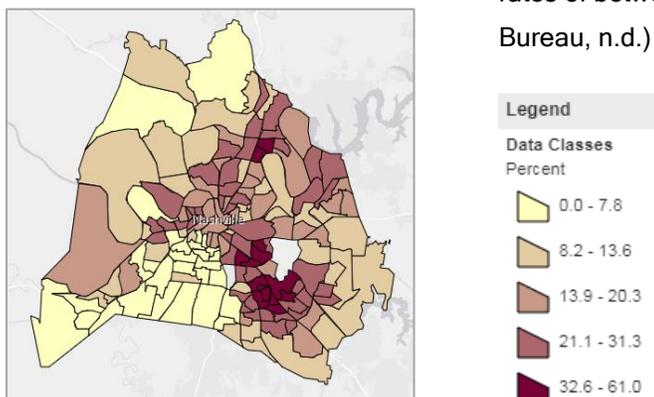
## Access to Health Care

Access to appropriate healthcare is one of the factors that affect health outcomes. According to Healthy People 2020, “Access to comprehensive, quality health care services is important for promoting and maintaining health, preventing and managing disease, reducing unnecessary disability and premature death, and achieving health equity for all Americans,” (Office of Disease Prevention and Health Promotion, 2014).

## Insurance Coverage - Adults

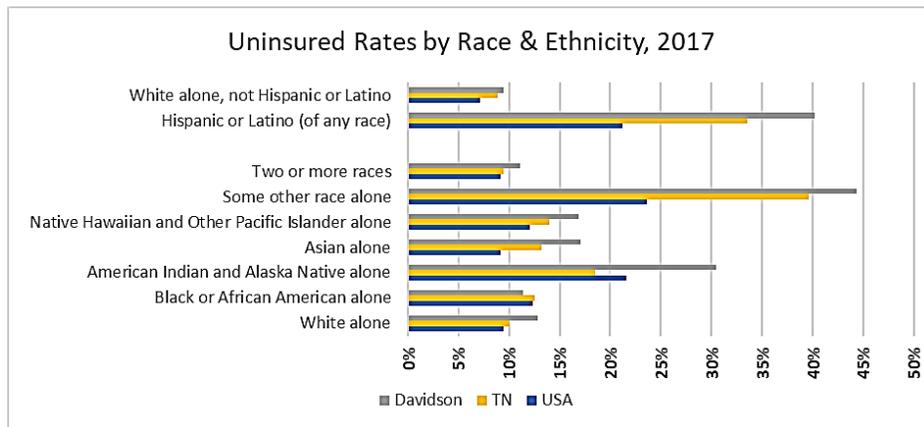
Most people enter the healthcare system through insurance coverage (Office of Disease Prevention and Health Promotion, 2014). Though uninsured rates are at historic lows, there are still populations with no access to insurance. This is largely due to cost and to other restrictions - for instance, immigrant eligibility restrictions or income restrictions. Populations most at risk for not having insurance are low-income adults and people of color. Lack of insurance can be a major deterrent in seeking necessary care. For this reason, insurance rates can serve as a proxy for health outcomes in general (Henry J. Kaiser Family Foundation, n.d.).

The age group with the highest uninsured rates nationwide is working-age adults between 19 and 64 ( U.S. Census Bureau, 2017). In Davidson County, 17.8% of working-age adults are uninsured. This is higher than both the state (15.9%) and national (14.8%) rates of uninsured. **Figure 22** shows where in Davidson County uninsured adults reside by census tract, with the darkest tracts having rates of between 32-61% uninsured. (U.S. Census Bureau, n.d.)



**Figure 22: Uninsured Adults Age 19-64 by Census Tract, U.S. Census Bureau (2017).**

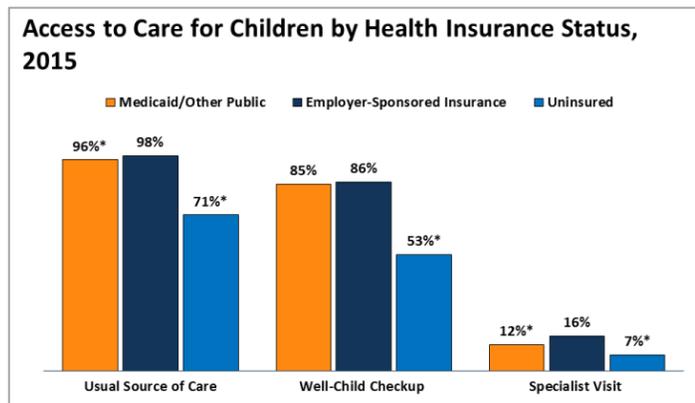
**Figure 23** displays the racial disparities in insurance coverage throughout Davidson County. 40.2% of Hispanic or Latino residents lack insurance, while Whites of non-Hispanic origin are uninsured at a rate of 9.4% overall. Whites and Blacks have the lowest uninsured rates in the county, while those of Asian origin, of mixed race, and other groups have far higher rates (U.S. Census Bureau, n.d.).



**Figure 23: Uninsured Rates by Race, U.S. Census Bureau (2017).**

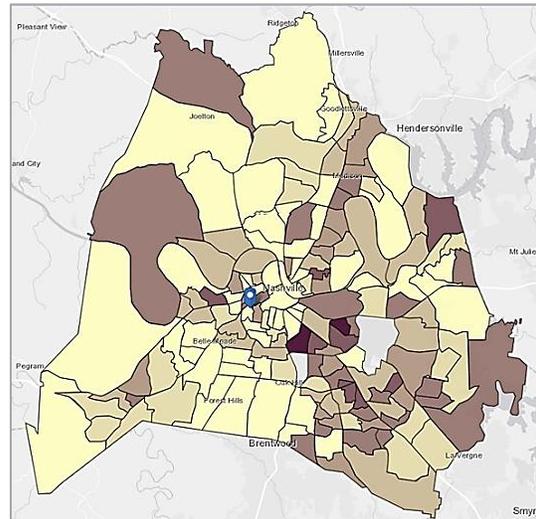
Insurance Coverage - Children

Children’s uninsured rates are at an all-time low nationally. In **Figure 24**, the orange and dark blue bars represent children with private and public insurance/Medicaid, and the light blue bars represent children with no insurance. In all instances, children with no insurance are significantly less likely to have access to a usual source of care, to receive a well-child checkup, or to receive a specialist visit (Henry J. Kaiser Family Foundation, 2017).



**Figure 24: Access to Care by Insurance Status for Children, Kaiser Family Foundation (2017).**

In Davidson County, 6.9% of children less than 19 years of age are uninsured. This is higher than the state rate overall (4.8%) and slightly higher than the national rate (5.7%). **Figure 25** shows where in the county these children reside, with the darkest census tracts having between 33.7% and 44.3% of children without insurance ( U.S. Census Bureau, 2017).



**Figure 25: Uninsured by Census Tract, Population under Age 19, US Census Bureau (2017).**

### Provider Ratios

Access to care depends not only on insurance coverage, but on the availability of providers. Provider ratios, which are the number of primary care, dental and mental health providers available for the population, are important indicators to consider. Sufficient availability of primary care providers, defined as M.D.s and D.O.s specializing in general practice, family medicine, internal medicine, and pediatrics, is an important factor in preventive health and in receiving proper referrals to specialists when necessary (University of Wisconsin Population Health Institute, 2018). In Davidson County, there is 1 primary care provider for every 1,088 residents. This is more favorable than the state ratio (1:1,382), and slightly less favorable than the ratio of the top 10% of counties nationwide (1: 1,030) (University of Wisconsin Population Health Institute, 2018).

Similarly, access to dental care is a crucial factor in health, and a shortage of providers continues to affect much of the nation. Davidson County does better than the state (1:1,892) with 1 provider for every 1,324 citizens but is still short of the rate in the top 10% of counties (1: 1,280) (University of Wisconsin Population Health Institute, 2018).

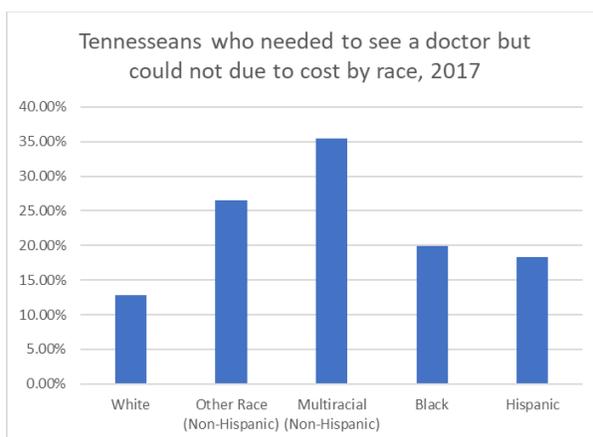
Davidson County has one mental health provider (defined as psychiatrists, psychologists, licensed clinical social workers, counselors, marriage and family therapists, mental health providers that treat

alcohol and other drug abuse, and advanced practice nurses specializing in mental health care) for every 359 residents. Davidson’s rate is more favorable than the state (1:742), but less favorable than the top 10% of counties (1:330) (University of Wisconsin Population Health Institute, 2018). Data are shown in **Table 1** below.

**Table 1: Provider Ratios, County Health Rankings, 2018**

	Primary Care Providers	Dentists	Mental Health Providers
	1:1088	1:1324	1:359
	1:1382	1:1892	1:742
	1:1030	1:1280	1:330

There are racial disparities in access to care. **Figure 26**, shows Tennesseans who needed to see a doctor in the past year but could not due to cost. Roughly 18% of Hispanic respondents needed to see a doctor but could not due to cost, compared to 20% of Black and 13% of White respondents. Those of other races or multiracial could not see a doctor due to cost at much higher rates (26.5% and 35.5% respectively) (Tennessee State Department of Health, 2017).



**Figure 26: Could not see a doctor due to cost, TN Dept. of Health (2017).**

Access to a consistent primary care physician is crucial to preventive care. In Tennessee, ~21% of

White and 25% of Black residents don't have anyone they consider to be their personal health care provider. This number is highest for Hispanic residents with 37% of this population indicating that they don't have one person who is their doctor (Tennessee State Department of Health, 2017).

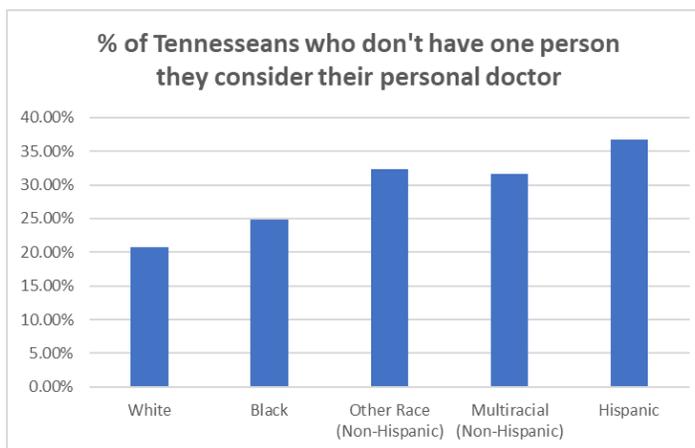


Figure 27: Lack of PCP by race, TN Dept. of Health (2017).

## Behavioral Risk Factors

There are several behavioral factors that influence health outcomes. In Tennessee, this category encompasses what the TN State Health Department calls “The Big 4”: physical inactivity, excessive caloric intake, tobacco and nicotine addiction, and other substance use disorders. Together, these 4 categories of behaviors drive the top 10 causes of death in our state (Dreyzhner, 2017).

### Obesity and Physical Activity - Adult

Behaviors that affect the likelihood of adult obesity include physical activity and eating patterns. Other contributing factors include food, built environment, education, and access to opportunities for physical activity. The impacts of obesity in adulthood include higher risk for poor physical outcomes such as hypertension, diabetes, high cholesterol, heart disease, and stroke, as well as emotional and psychological consequences such as depression/anxiety and lower quality of life (Centers for Disease Control and Prevention, 2017).

Centers for Disease Control and Prevention defines Adult Obesity as the percentage of the adult population (age 20 and older) that reports a body mass index (BMI) greater than or equal to 30, while overweight is defined as a BMI between 25-30 (Centers for Disease Control and Prevention, 2017).

**Figure 28** shows over the last 10+ years, obesity rates in the United States have risen steadily. Davidson's percentage of obese adults has been higher than the nation but lower than the state. Both Tennessee and Davidson County have historically been above the national obesity rate for adults (University of Wisconsin Population Health Institute, 2018).

Additionally, in the 2017 Behavioral Risk Factor Surveillance System Survey, 26% of Davidson adults ages 20 and up adults reported not receiving any physical activity or exercise outside of their regular jobs in the previous 30-day period. Across Tennessee, this rate is 30.6% (Tennessee Department of Health, 2017).

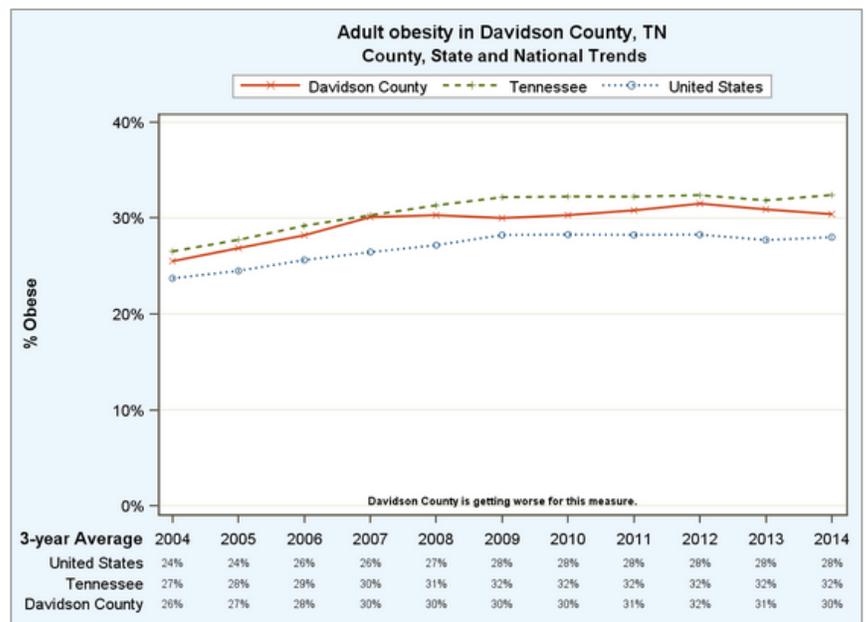


Figure 28: Adults Obese over Time, County Health Rankings (2018).

Obesity and Physical Activity - Youth

Lack of physical activity and consumption of high-calorie, low-nutrient food and beverages can lead to childhood obesity. Childhood obesity is related to several adverse physical and psychosocial problems in childhood and beyond. Obesity is correlated with hypertension, higher cholesterol, greater risk of type 2 diabetes, breathing issues, and joint problems for children. It is also linked to psychological and emotion problems like anxiety, depression, and lower self-esteem. There is a linked risk of these conditions becoming more severe in adulthood (Centers for Disease Control and Prevention, 2016).

The Centers for Disease Control and Prevention defines a child as overweight as having a BMI in the 85<sup>th</sup>-94<sup>th</sup> percentile of children of the same age and sex, and childhood obesity is defined as a BMI in the 95<sup>th</sup> percentile and above (Centers for Disease Control and Prevention, 2018).

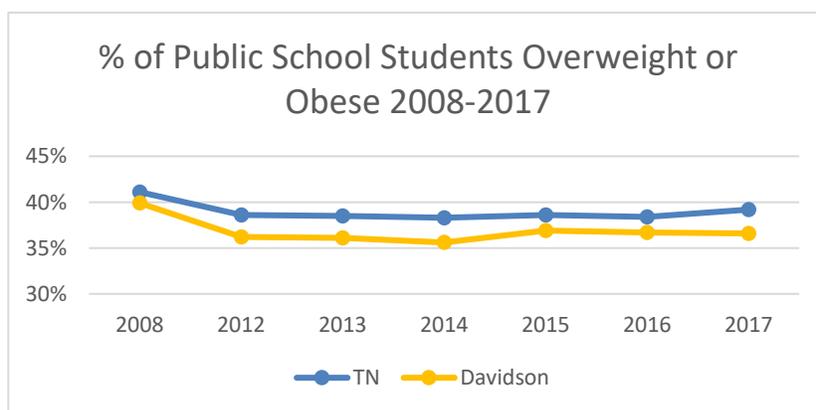


Figure 29: Student Obesity rate over Time, BRFSS (2018).

has the second-highest rate of obesity in the nation among high school students at 20.5% compared to a nationwide rate of 14.8% (Centers for Disease Control and Prevention, 2017), while in Davidson County, roughly 36% of public school students are overweight or obese (The Annie E. Casey

Foundation , n.d.).

Additionally, in Tennessee, according to the Youth Risk Behavior Survey, more than half of children (56%) did not receive the recommended amount of physical activity weekly (at least 60 minutes per day on 5 or more days). Furthermore, 16.8% of Tennessee high school youth did not participate in 60 minutes of physical activity on at least one day of the week (Centers for Disease Control and Prevention, 2017).

### Recreation Opportunities

Opportunities to exercise and be physically active are important in maintaining a healthy weight and staying fit through all stages of life. According to Community Commons, “A community’s health [...] is affected by the physical environment. A safe, clean environment that provides access to healthy food and recreational opportunities is important to maintaining and improving community health [...] This indicator is relevant because easy access to recreation and fitness facilities encourages physical activity and other healthy behaviors.” Recreation and fitness facilities can include exercise centers, skating rinks, gymnasiums, physical fitness centers, tennis clubs, swimming pools, and others (Community Commons, 2018).

Compared to the state and nation, Davidson County has more recreation and fitness facilities available with a rate of 16 recreation facilities per 100,000 persons. Tennessee’s rate overall is 9:100,000, and the United States rate is 11: 100,000. **Figure 30** shows where facilities are concentrated by zip code throughout the county (Community Commons, 2018).

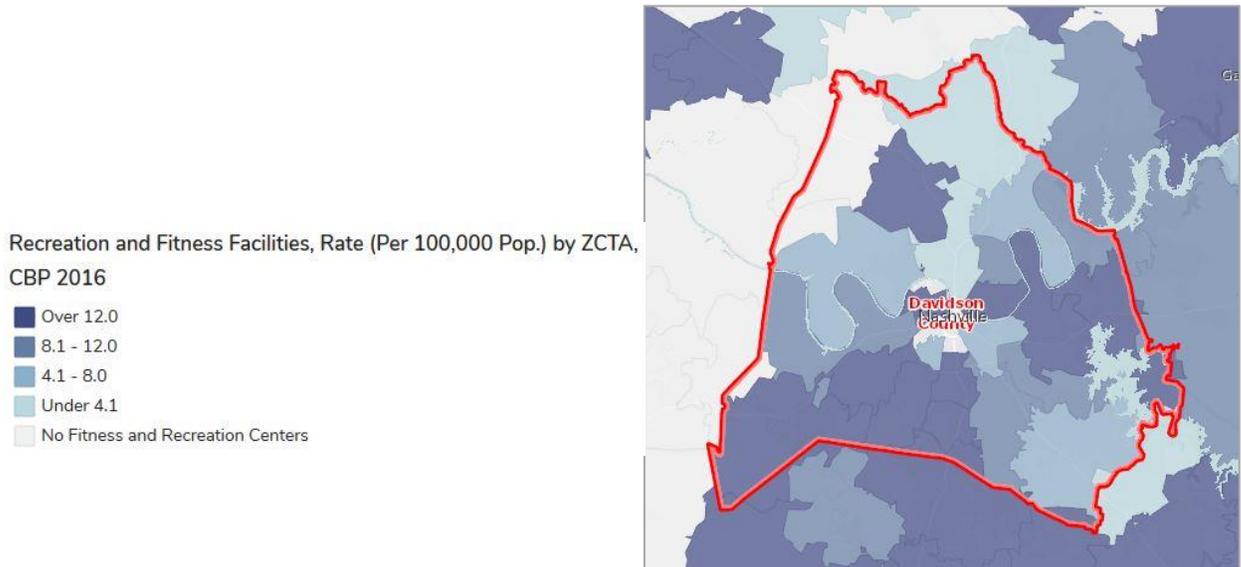


Figure 30: Recreation Facilities per 100,000 pop., Community Commons (2018).

## Tobacco Use

Smoking and tobacco use are health behaviors that affect almost every part of the body negatively. According to the Centers for Disease Control, “Smoking causes cancer, heart disease, stroke, lung diseases, diabetes, and chronic obstructive pulmonary disease (COPD), which includes emphysema and chronic bronchitis. Smoking also increases risk for tuberculosis, certain eye diseases, and problems of the immune system, including rheumatoid arthritis. Secondhand smoke exposure contributes to approximately 41,000 deaths among nonsmoking adults and 400 deaths in infants each year. Secondhand smoke causes stroke, lung cancer, and coronary heart disease in adults. Children who are exposed to secondhand smoke are at increased risk for sudden infant death syndrome, acute respiratory infections, middle ear disease, more severe asthma, respiratory symptoms, and slowed lung growth” (Centers for Disease Control and Prevention, 2018).

According to the 2016 Behavioral Risk Factor Surveillance System survey, Tennessee ranks among the top states in the nation for smoking rates among adults (**Figure 31**) (Centers for Disease Control and Prevention, 2016). While nationwide, 15.5% of adults report smoking cigarettes, in Tennessee, this is 22%, and in Davidson County, 21% of adults report smoking cigarettes (**Figure 32**) (University of Wisconsin Population Health Institute, 2018). The Healthy People 2020 nationwide goal of adults smoking is 12% (Office of Disease Prevention and Health Promotion, n.d.).

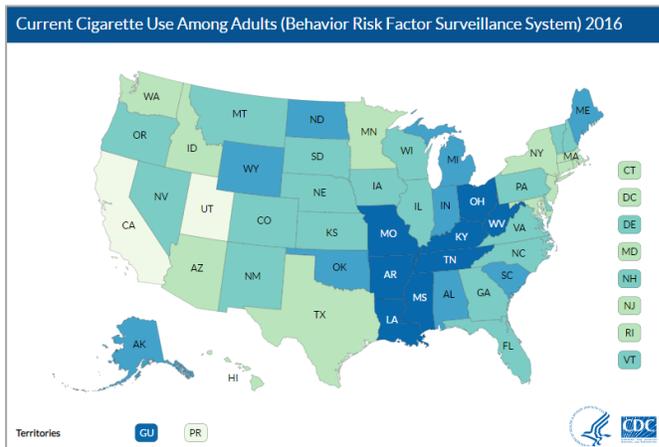


Figure 31: Cigarette Use among Adults, CDC (2016).

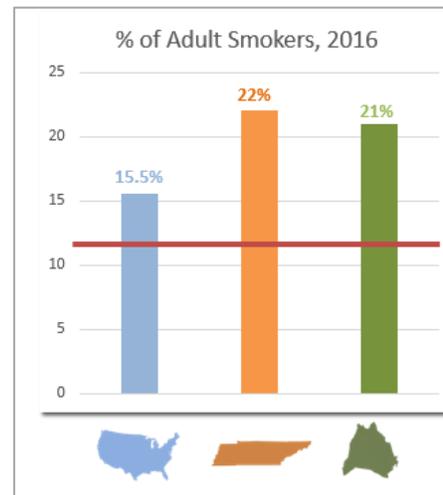


Figure 32: Percent of Adult Smokers, County Health Rankings (2018).

## Tobacco Use - Youth

Nationally, ~20% of youth use any tobacco product, with the most-used being e-cigarettes. ~10% have smoked a cigarette before age 13 (Centers for Disease Control and Prevention, 2013). Local, state and national data are available in **Figure 33** (TN Department of Mental Health and Substance Abuse Service, 2016)

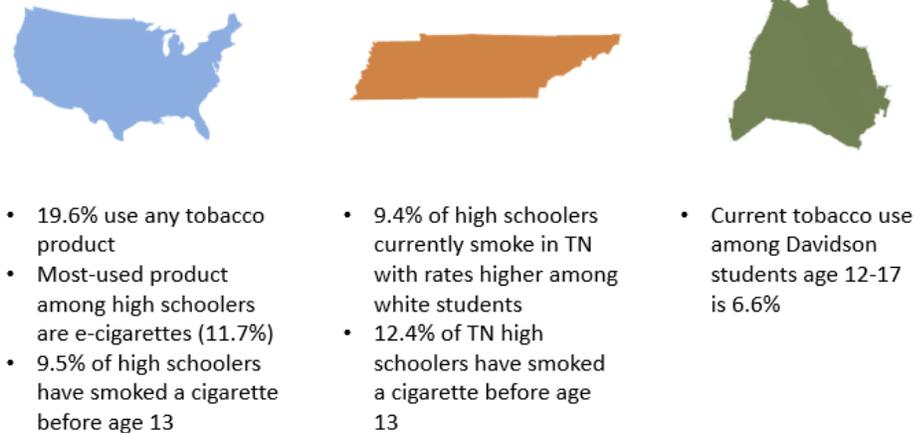


Figure 33: Youth Tobacco Rates, TDMHSAS (2016).

## Alcohol

Excessive drinking is defined by the Centers for Disease Control and Prevention as binge drinking, heavy drinking, and any drinking by pregnant women or people younger than age 21.

- Binge drinking is defined as consuming:
  - For women, 4 or more drinks during a single occasion
  - For men, 5 or more drinks during a single occasion
- Heavy drinking is defined as consuming:
  - For women, 8 or more drinks per week
  - For men, 15 or more drinks per week

In the short term, health consequences of excessive drinking include susceptibility to injuries, accidents, violence, and poor decisions about sexual behaviors that can lead to poor health outcomes. Over the long term, excessive drinking can lead to the development of chronic diseases like hypertension and heart disease, liver disease, certain cancers, and anxiety or depression. Avoiding excessive drinking can help reduce likelihood of developing these conditions (Centers for Disease Control and Prevention, 2018).

According to the 2016 Behavioral Risk Factor Surveillance System survey, in Davidson County, 18% of adults reported drinking excessively in the last 30 days. This is lower than the national rate of 27%, though higher than the state rate of 14% (University of Wisconsin Population Health Institute,

2018). 29% of driving deaths involved alcohol impairment (University of Wisconsin Population Health Institute, 2018). 45% of admissions to substance abuse treatment services were people seeking treatment for alcohol abuse (TN Department of Mental Health and Substance Abuse Services, 2017).

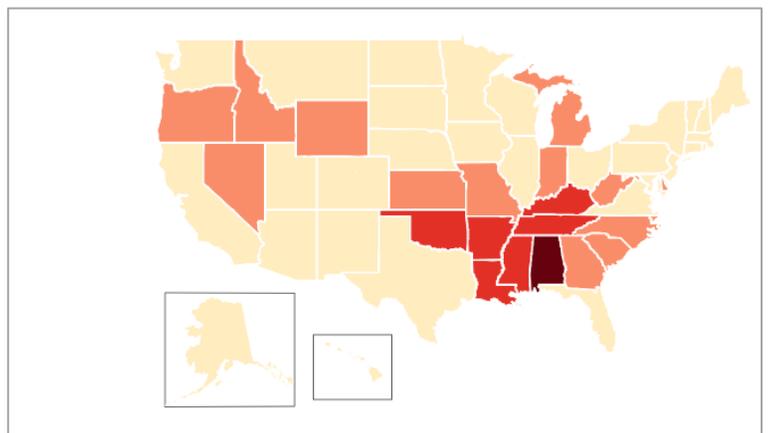
**Table 2: Alcohol Use**

			
Excessive Drinking	<b>27%</b>	<b>14%</b>	<b>18%</b>
Alcohol-impaired driving deaths	<b>28%</b>	<b>28%</b>	<b>29%</b>
Alcohol dependence	<b>7%</b>	<b>5.8%</b>	<b>7%</b>
% of admissions to treatment for alcohol abuse	<b>34%</b>	<b>42%</b>	<b>45%</b>

[Drug Use](#)

Death due to drug overdose is on the rise in the US, according to the Centers for Disease Control and Prevention. Currently, around two-thirds of drug overdose deaths involve an opioid, including prescription drugs like Oxycodone and Hydrocodone, synthetic opiates like Fentanyl, and heroin. In 2017, 47,000 people in the US died from an opioid overdose. This is a nearly 6-fold increase since 1999 (Centers for Disease Control and Prevention, 2017).

Tennessee has been at the forefront of the opioid crisis as one of the states with the highest rates of opioid prescriptions, ranking third behind Alabama and Arkansas for the number of prescriptions written for every 100 residents (**Figure 34**). In 2017, there were 94.4 opioid prescriptions written for every 100 Tennesseans (Alabama and Arkansas had 107.2:100 and 105.4:100 respectively) (Centers for Disease Control and Prevention, 2017).



**Figure 34: Opioid Prescribing Rate, CDC (2017).**

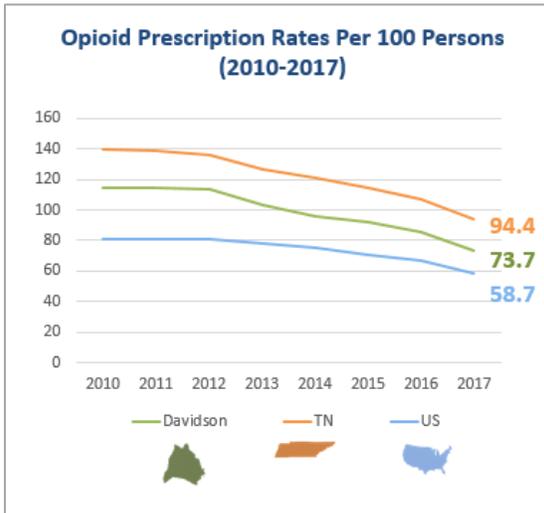


Figure 35: Opioid Prescribing Rate per 100 persons over time, CDC (2017).

Figure 35 represents that prescribing rates have trended downward over the last 8 years. In Davidson County, the rate of opiate prescriptions/100 people is 73.7, which is lower than the state overall (94.4:100) but still higher than the national rate of 58.7:100 (Centers for Disease Control and Prevention, 2017).

In 2017, there were 1,776 drug overdose deaths in Tennessee. Of these, 1,268, or 71%, were due to opioids. This table shows Davidson County's drug overdose deaths from the last several years. In 2017, Davidson had 236 total drug overdose deaths. The blue portion of the

bars (dark and light combined) represents all opioid deaths, showing that 184 of those 236 overdose deaths, or 78%, in 2017 were due to opioids such as hydrocodone, oxycodone, opium, and morphine. The dark portion of the bar represents heroin overdose deaths. The use of heroin, an illegal opioid, is on the rise, as opioid prescriptions have begun to be more tightly restricted. Of the 184 opioid deaths in 2017, 77 represented a heroin overdose (Tennessee Department of Health, 2017). Figure 36 demonstrates the increase in heroin overdose deaths over the last 5 years.

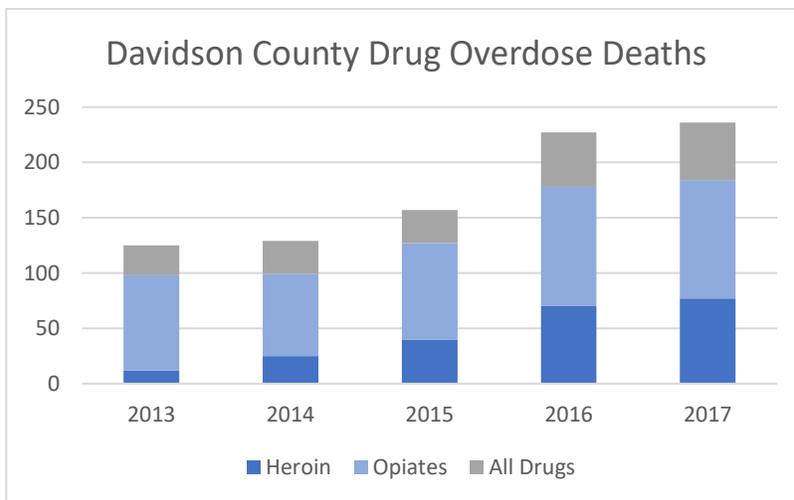
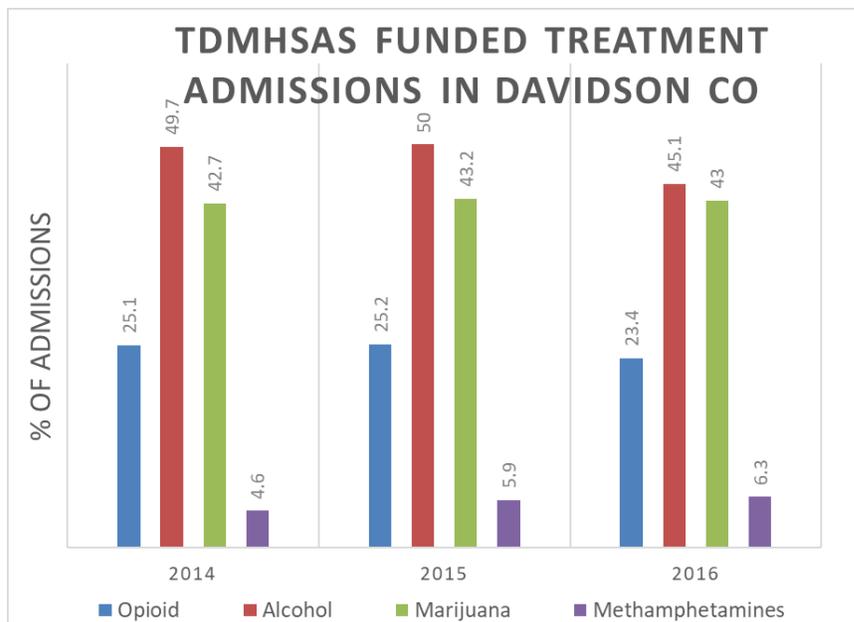


Figure 36: Davidson County Drug Overdose Deaths, TN Dept. of Health (2017).

**Figure 37** displays the reasons people in Davidson county sought treatment for substance abuse over 2014-2016 from the TN Department of Mental Health and Substance Abuse Services (TDMHSAS). These numbers represent duplicated admissions, so a single individual might have been admitted more than one time to several levels of care or had several admissions during the fiscal year.

Admission rates for the listed substances have remained relatively consistent, with alcohol (red bars) admission rates declining slightly from 49.7% to 45.1% and methamphetamine (purple bars) rising slightly from 4.6% to 6.3%.

43.7% of admissions were to outpatient rehabilitation programs, while 56.3% were to some kind of inpatient program. These include: freestanding residential detoxification programs (25.9%), Intensive Outpatient Programs (23% statewide), and short term (<30 days) residential services (23.2%) (The Tennessee Department of Mental Health and Substance Abuse Services, 2017).

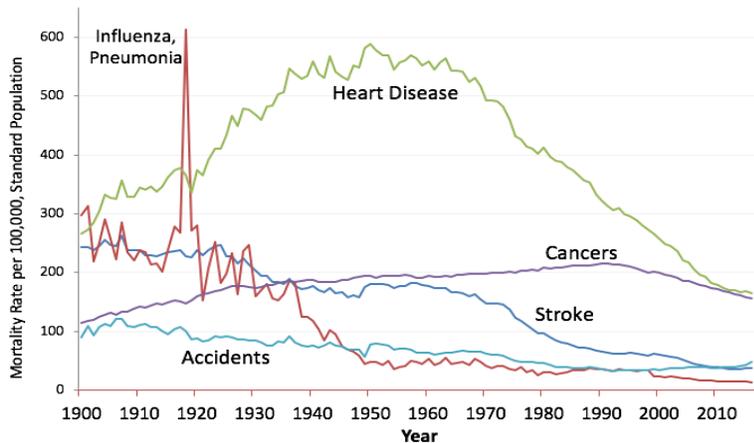


**Figure 37: Treatment Admissions in Davidson Co, TDMHSAS (2017).**

Morbidity and Mortality

The World Health Organization reports that the global burden of disease has shifted over the last century from infectious disease to chronic disease (World Health Organization, n.d.).

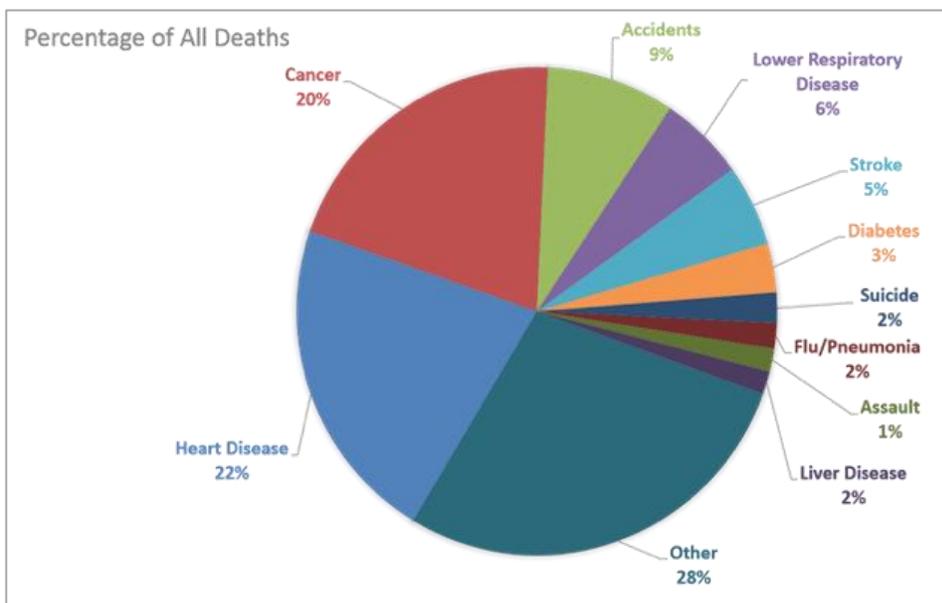
**Figure 38** shows the top five leading causes of death in the United States from 1900-2016. In the early 1900s, the leading causes of death in the US were



**Figure 38: Global Burden of Disease over time, CDC (2018).**

infectious diseases such as influenza/pneumonia, tuberculosis, diarrhea/enteritis/ulcerative colitis, but also included heart disease and stroke. More than a century later, the leading causes of death have shifted to chronic diseases such as heart disease and various cancers (Centers for Disease Control and Prevention, 2018).

The leading causes of death in Davidson County are consistent with trends at the state and national levels. In 2016, 42% of the deaths were from heart disease (22%) and cancer (20%). Other leading causes include accidents (9%), lung disease (6%), stroke (5%), diabetes (3%), suicide (2%), influenza/pneumonia (2%), liver disease (2%), and assault (1%). In all, these 10 leading causes of death comprise 71.9% of all deaths in Davidson County (Centers for Disease Control and Prevention, 2018).



**Figure 39: Deaths in Davidson County, CDC (2018).**

## Chronic Diseases

According to the CDC, diabetes is the seventh leading cause of death in the United States. The number of people diagnosed with diabetes has tripled in the last 20 years affecting more than 25 million people. In Davidson County, 10.4% of adults have been diagnosed with diabetes which is lower than the state (13%) and the nation (10.5%) (Centers for Disease Control and Prevention, n.d.).

In 2013, more than 360,000 national deaths noted hypertension (high blood pressure) as a primary or contributing cause of death. Hypertension can increase risks of other health conditions such as heart attacks, strokes, heart failure, and kidney disease (Centers for Disease Control and Prevention, n.d.).

32.9% of adults in Davidson County have been diagnosed with high blood pressure which is lower than the state (38.7%) and the nation (42.2%). Healthy People 2020 has established a goal to reduce the number of adults diagnosed with high blood pressure to 26.9%.

High cholesterol, a major risk factor for heart disease, affects one in six adults. In Davidson County, 35.6% of adults report having high cholesterol. This is lower than the state (36%) but higher than the nation (33%) (Centers for Disease Control and Prevention, n.d.).

## Assault

Firearm deaths are often “more common in communities than on the battlefield” and while public acts of terror draw the most attention, more firearm deaths are “homicides and suicides that occur behind closed doors,” according to the Stanford University School of Medicine (Stanford University, n.d.).

Tennessee ranks 12th overall for rate of firearm deaths, with 14.7 per 100,000 annually. In 2014, there were nearly 1,000 firearm deaths in Tennessee.

In 2016, the homicide mortality rate among teens and young adults in Davidson County was 26.5 deaths per 100,000. This rate is 50.6% higher than the rate for the state (17.6) and is more than double the rate for the nation (11.9) (Centers for Disease Control & Prevention, n.d.).

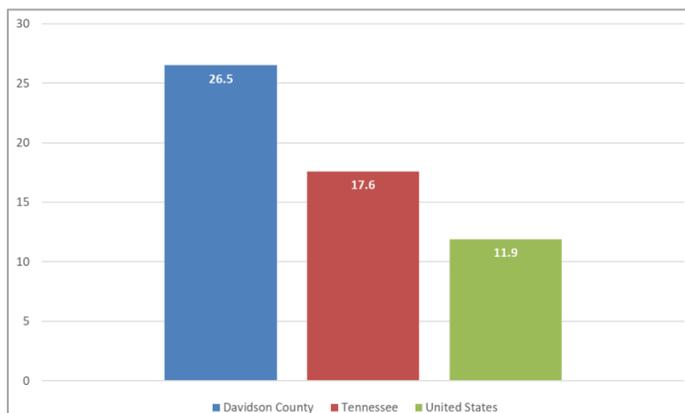


Figure 40: Firearm Deaths, CDC (2018).

The leading cause of death for African Americans between 15-34 years old is homicide with 91% committed with a firearm. The issue is linked to mental health as a substantial portion of firearm deaths in the nation, between 1999-2017, 58.5% of firearm fatalities were suicide (Centers for Disease Control & Prevention, n.d.).

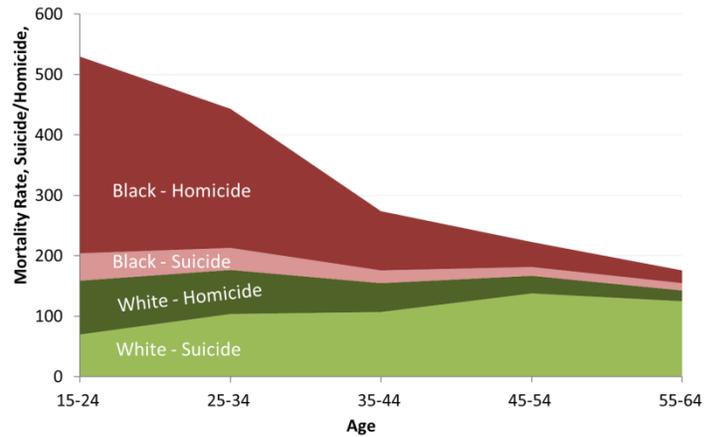


Figure 41: Firearm deaths by race and age, CDC (2018).

Figure 41 illustrates the mortality rate for Davidson County residents from homicide and suicide throughout most of their adult lives. The homicide death rate is the greatest among African American individuals ages 15-34 and the suicide death rate is the greatest among White individuals aged 45-64. Figure 41 also shows that the homicide rates tend to decrease as individuals age, while suicide rates - specifically for White individuals - increases with age (Centers for Disease Control & Prevention, n.d.).

Maternal and Child Health

One way to assess the health of a community is to examine the health of mothers and children. Infant mortality, defined as the death of a child less than one-year-old, is an important health indicator because it not only speaks to deaths among the youngest of the population, but also provides information about the health of women, the quality and access to medical care, and the socioeconomic conditions in the community.

The infant mortality rate in Davidson County in 2017 was 7.0 deaths per 1,000 live births. This rate is lower than the state (7.4: 1,000) but is 21% higher than the nation (5.8: 1,000), and 17% higher than the Healthy People 2020 goal (6: 1,000) (Healthy Nashville, 2016).

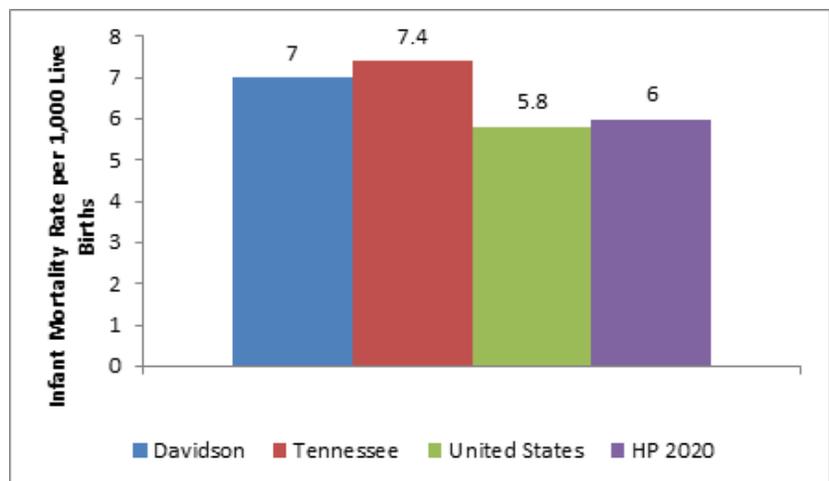


Figure 42: Infant Mortality Rates, Annie E. Casey Foundation (n.d.).

Birth weight is one of the strongest predictors of survival for infants. The risk of death is higher among infants born too soon and/or too small. These infants experience higher risks of long-term neurological issues such as cerebral palsy and seizure disorders, developmental delays, and perinatal infections. Low birth weight, defined as a birth weight less than 2500 grams (5 lbs., 8 oz.), and very low birth weight defined as a birth weight less than 1500 grams (3 lbs., 4 oz.) are major contributors to infant mortality (Healthy Nashville, 2017).

In 2017, 9.2% of infants were born with a low birth weight in Davidson County, while 1.6% of infants were delivered with a very low birth weight. The prevalence of low birth weight is the same as that for the state (9.1%), and 11% higher than the nation (8.3%) (Healthy Nashville, 2017).

The burden of most health outcomes is not evenly distributed in Davidson County. **Figure 43** displays the persistent disparity between African Americans and Whites for both low birth weight and infant mortality. Among African American women, 14.4% of infants are born with low birth weight compared to 7% of White women. The prevalence of very low birth weight is also higher among African American women, and the infant mortality rate among African American infants is 3.1 times higher than the rate for Whites (Healthy Nashville, 2017).

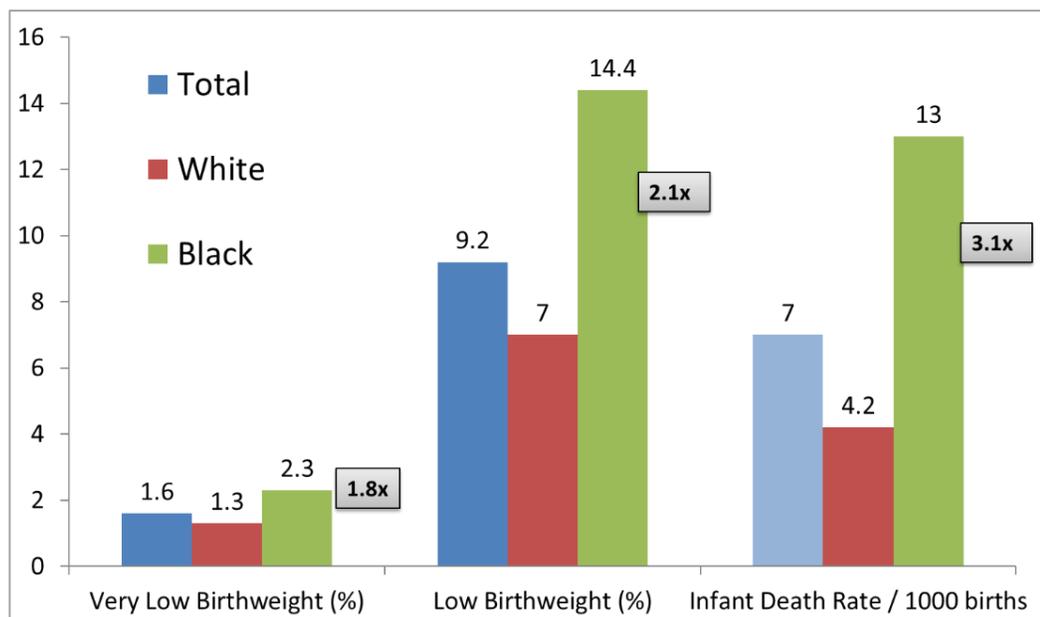


Figure 43: Birth outcomes by race, Healthy Nashville (2017).

The health of an infant is greatly influenced by the health of the mother before, during, and after pregnancy. Preventing poor birth outcomes begins with improving the health of the mother prior to pregnancy. In 2016, 28.6% of Davidson County mothers had at least one medical risk factor during pregnancy such as diabetes, hypertension, a previous preterm birth, or a previous poor pregnancy outcome. Additionally, 48.4% of mothers were overweight or obese prior to pregnancy (Annie E.

Casey Foundation, 2016).

Disparities persist in these indicators. 36% of Non-Hispanic African American mothers experienced at least one medical risk factor during pregnancy compared 25.1% of Non-Hispanic White mothers. In 2016, 38.6% of Non-Hispanic White mothers were overweight or obese prior to pregnancy compared to 64.5% of

Non-Hispanic African American mothers (Annie E. Casey Foundation, 2016).

A multitude of studies demonstrates the ill effects of maternal smoking on the growth and health of a developing fetus.

Maternal smoking has been linked to infertility, preterm birth, low birth weight, and long-term

tissue damage in the lungs and brain. The percentage of women who smoked during pregnancy in 2016 in Davidson County was 6.5%. This percentage is considerably lower than the rate for the state (13.4%), and slightly lower than the rate for the nation (7.2%). Of note, for the state and nation more White than African American mothers smoked during pregnancy. This trend is reversed for Davidson County. In 2016, 6.5% of White mothers smoked during pregnancy compared to 7.7% of African American mothers (Annie E. Casey Foundation, 2016).

Prenatal care forms the cornerstone of the healthcare system for pregnant women. In addition to helping women manage chronic health issues and providing education on nutrition-related and behavioral risk factors, adequate prenatal care can also detect problems with the health of the mother and the fetus early in the pregnancy, when treatment might be most effective in preventing poor birth outcomes. Adequacy of prenatal care is a composite measure that evaluates both the timing of when prenatal care began and the number of visits. In 2016, 60.8% of mothers in Davidson County received adequate or more than adequate prenatal care, an estimate that is considerably lower than that of the state at 74.2%, and the nation (75.6%). Davidson County is 21.6% under the Healthy People 2020 objective of 77.6% (Centers for Disease Control and Prevention, 2016).

When we examine the data by race, the percentage of adequate prenatal care for Non-Hispanic White women (67.3%) is higher than that for Non-Hispanic African American women (60.0%) in Davidson County. The percentage of Non-Hispanic African American women in Davidson County

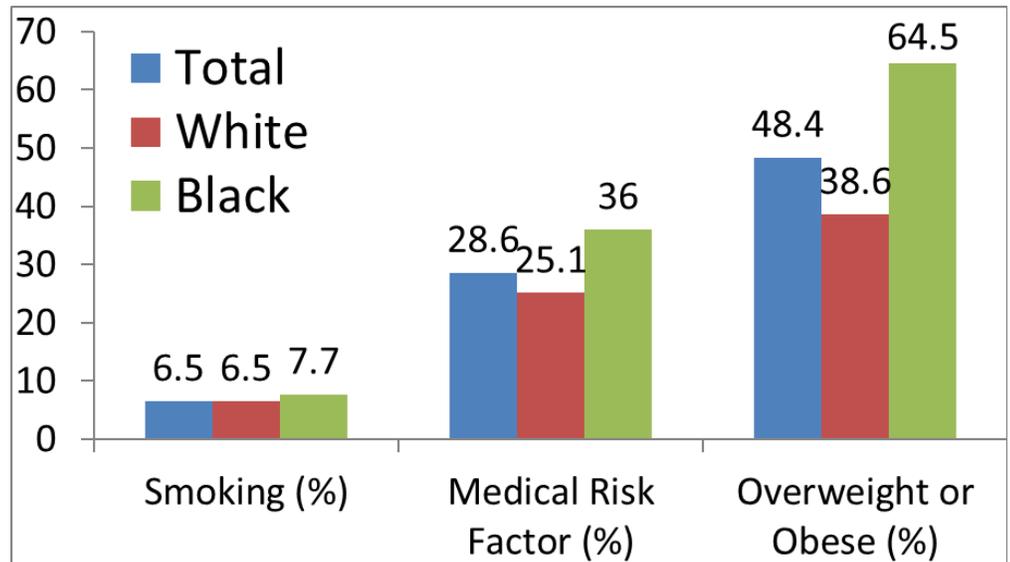
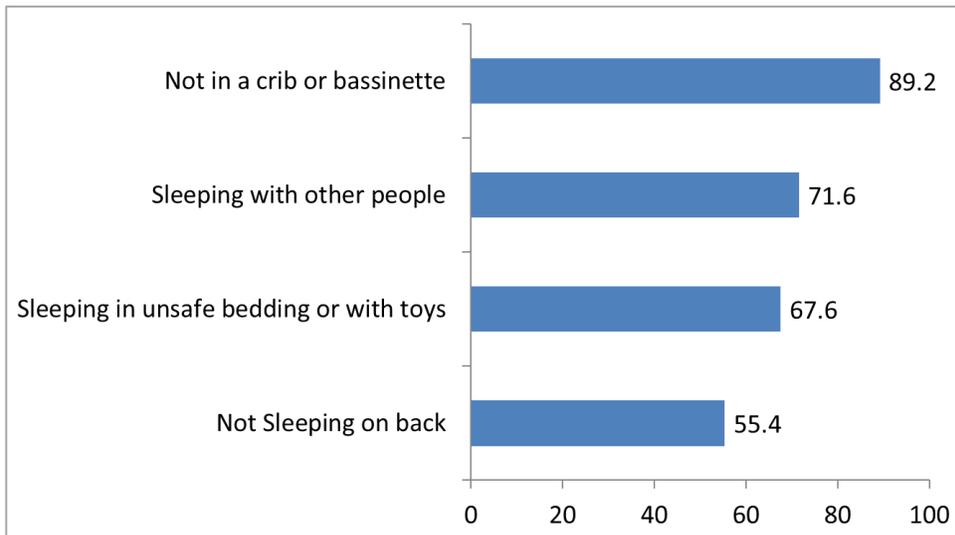


Figure 44: Maternal risk factors by race, Annie E. Casey Foundation (2016)

receiving at least adequate prenatal care (60.0%) is similar to that for the nation (66.4%). The percentage of Non-Hispanic White women in Davidson County receiving at least adequate prenatal care is 16.5% lower than that for the nation (Davidson County: 67.3% vs. nation: 80.5%) (Healthy Nashville, 2011).

Not all of the contributors to infant mortality in Davidson County are related to medical conditions. For example, 25% of infant deaths are attributable to sleep-related causes. The American Academy of Pediatrics advocates for the ABC's (alone, back, crib) of safe sleep. Specifically, infants should sleep alone, on their back and in a crib that is free from loose bedding, bumper pads, and toys. Reference **Figure 45** for the percent of factors involved in sleep-related infant deaths.



**Figure 45: Factors involved in sleep-related infant deaths, Healthy Nashville (2017).**

Another factor to consider when examining maternal and child health is teen pregnancy. Teen pregnancy and childbearing have substantial social and economic costs as well as long-term impacts on teen parents and their children. According to the CDC, teen pregnancy and childbirth were associated with increased health care and foster care costs, increased incarceration rates among children of teen parents, and lower educational attainment and income among teen mothers (Centers for Disease Control and Prevention, n.d.). Since 2008, teen pregnancy rates in Davidson County have declined 71%, and have declined 63% statewide. And in 2017, the rate of pregnancy among teen women aged 15 to 17 years was 14.7 per 1,000 females of the same age group, which is only slightly higher than the rate for the state (12.4) (Annie E. Casey Foundation, n.d.).

## Mental Health

In 2016, Davidson County adults reported having 4.4 poor mental health days in the last 30 days. These data are in line with the number of days reported by Tennessee adults but higher than the nation's average of 3.7 days. Poor mental health days are trending upward in Davidson County and

Tennessee (University of Wisconsin Population Health Institute, 2018).

Davidson County reported child abuse cases have gone up slightly during the 2013-2017 spans from 3.6% to 4.1% but remain lower than the state rate of 4.9%. The substantiated child abuse cases have trended down from 2014-2017 from 4.2% to 4.1% but also remain lower than the state rate of 5.4% (Annie E. Casey Foundation, 2018).

### [ACEs \(Adverse Childhood Experiences\)](#)

Emerging research on ACEs (Adverse Childhood Experiences), or traumas sustained by children before the age of 18, indicates the lifelong impact of these events on a person's health and socioeconomic outcomes. ACEs range from divorce/separation to incarceration of a parent to physical violence and neglect. A high ACE score is a strong predictor of health problems in adulthood. Regarding the original ACE study, which brought the impact of these childhood traumas to the forefront, the Substance Abuse and Mental Health Services Administration states, "As researchers followed participants over time, they discovered that a person's cumulative ACEs score has a strong, graded relationship to numerous health, social, and behavioral problems throughout their lifespan, including substance use disorders," (U.S. Department of Substance Abuse and Mental Health Services, 2018)

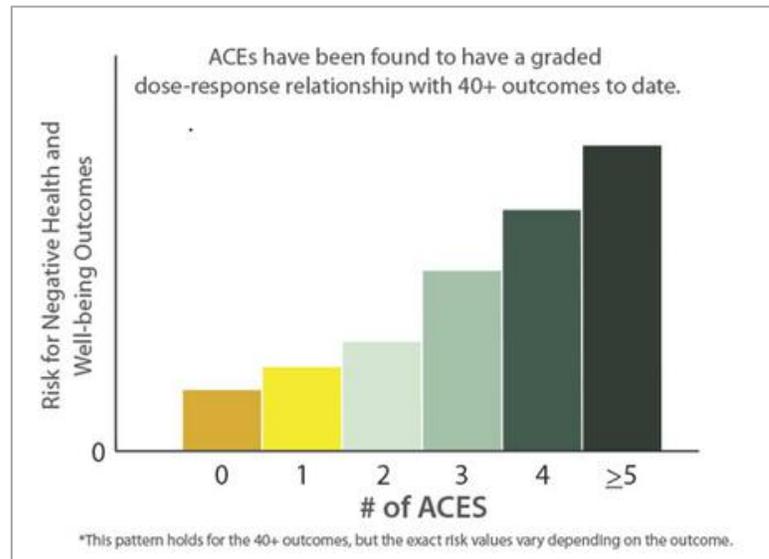


Figure 46: Correlation of ACE Score and Life Outcomes, US Dept of Substance Abuse & Mental Health Services (2016).

Tennesseans fall in the highest quartile nationwide in terms of the prevalence of these childhood traumas (Child Trends, 2014). There is no county level data but some nonprofit and health organizations in Davidson County are starting to screen for ACEs as a part of their intake process, and a thriving ACEs Collective Impact initiative in Davidson County is beginning to address the

challenges presented by ACEs.

ACEs contribute to health outcomes in adults. ACEs include three categories of adverse experience: child abuse, neglect, and family dysfunction. The 2015-2016 Tennessee data show the number of adults with ACEs increased from 39% to 48% in one year.

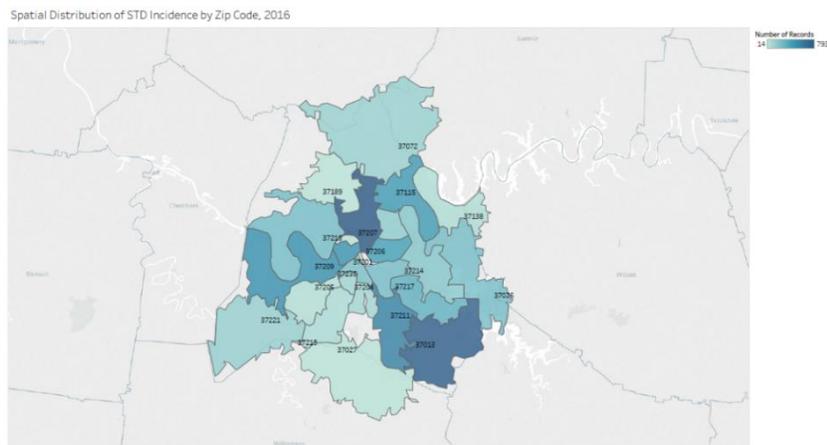
**Table 3 Tennessee adults with ACEs**

2015		2016	
# ACEs	% TN	# ACEs	% TN
0	48%	0	39%
1	20%	1	22%
2	11%	2	12.2%
3	7%	3	9.3%
4 (or more)	14%	4 (or more)	17.5%

Linkages between mental and physical health have been firmly proven. Evidence shows correlation between mental disorders and chronic diseases such as diabetes, cancer, cardiovascular disease, and obesity. Evidence also exists to show similar relations to the risk factors for chronic disease including physical activity, smoking, excessive drinking, and insufficient sleep.

### Sexually Transmitted Diseases

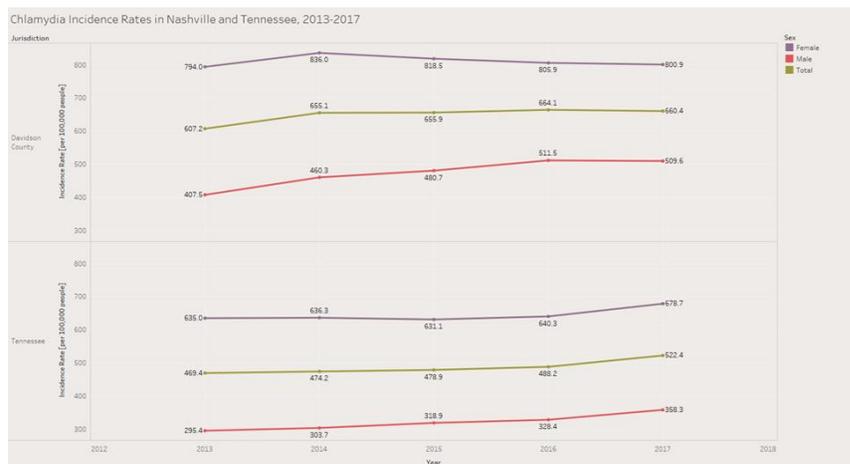
There are more sexually-transmitted diseases reported in Davidson County than any other sub-category of communicable disease. In 2018, 7,775 cases were reported, 42.9% of which were female chlamydial infections. Disparities exist across sex, race, and location. The spatial distribution of STD cases show clustering by ZIP code with many cases in the South Davidson County and North Davidson County areas (**Figure 47**). Our surveillance also indicates that Davidson County has been following the same increasing national trends since the early 2000s.



**Figure 47: Spatial distribution of STD incidence by ZIP Code, 2016 – Davidson County, MPHD (2018).**

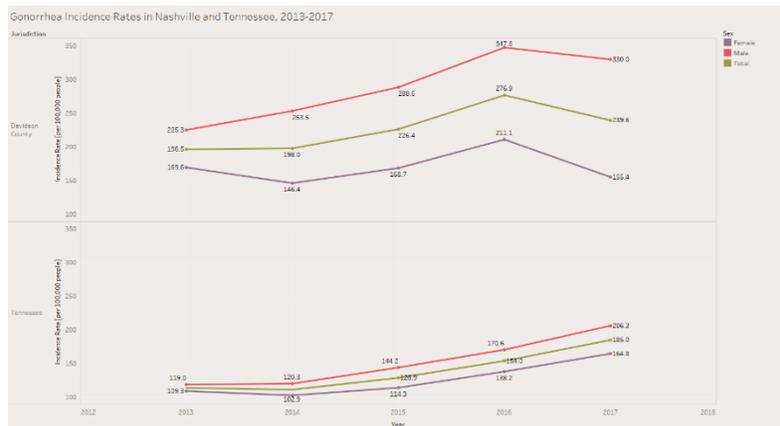
## Chlamydia

Chlamydia is the most commonly reported STD in the county and has one of the highest incidence rates of all the notifiable diseases, with rates over 600 cases per 100,000 people since 2013 (**Figure 48**). This is higher than the state (**Figure 48**) and the nation (528.8: 100,000). Chlamydia disproportionately affects younger females, with incidence rates in Davidson County for women aged 15-24 years consistently over 4,000: 100,000 people from 2012 to 2016. This is particularly problematic as the clinical manifestations can lead to pelvic inflammatory disease (PID) and infertility in young women. Infants can contract chlamydial conjunctivitis, trachoma, and pneumonia. The disease burden is even higher for young, black females as they have accounted for 51%-59% of chlamydia cases during that same time period, highlighting racial disparities in chlamydia morbidity. Fortunately, cases of chlamydia have high rates of treatment within 14 days of diagnosis, with 89% of females and 91% of males receiving treatment in that timeframe, and 95% or more treated within 30 days (Metro Public Health Department, 2017).



**Figure 48:** Chlamydia incidence rates in Davidson County and Tennessee, 2013-2017, MPH (2018).

## Gonorrhea



**Figure 49: Gonorrhea incidence rates in Davidson County and Tennessee, 2013-2017, MPHD (2017).**

These infections are often asymptomatic in females and symptomatic in males. Despite the lack of symptoms, gonococcal infections can cause PID in females leading to ectopic pregnancy and tubal scarring. Generally, gonorrhea infections have increased locally, statewide, and nationally since 2010.

Davidson County's case rate was nearly 1.3 to 1.8 times higher than that of the state from 2013 to 2017 (Figure 49). Between 2012 and 2017, over 70% of gonorrhea cases reported in Davidson County were among African Americans. In Davidson County and the state, rates of gonorrhea are higher in the male population; young African American men who have sex with men (MSM) account for many of these cases. Additional concerns with gonorrhea infections include increasing prevalence in antimicrobial-resistant strains, underscoring the need for diligent and complete treatment of gonococcal infections. Local STD Programs aim to either treat or verify correct treatment of at least 90% of gonorrhea infections within 30 days of diagnosis. In 2018, 84% of females and 93% of males were treated within 14 days and 90% of females and 95% of males were treated within 30 days of diagnosis (Metro Public Health Department, 2017).

## Syphilis

Syphilis is the least commonly reported STD in Davidson County. Incidence rates from 2013 to 2017 were higher than the state and higher among males than females. Locally, there has been a relatively stable trend in syphilis disease incidence rates from 2014-2017 for males, and a notable decrease for females between 2016 and 2017. There are racial disparities in morbidity of syphilis, as over 55% of cases in 2018 were black or African American.

Nationally, men who have sex with men (MSM) account for a high proportion of cases, and there is also a high infection rate among those with HIV (Centers for Disease Control and Prevention, n.d.).

## HIV

The HIV epidemic emerged in the early 1980s and new HIV diagnoses in Davidson County increased each year until peaking in the mid-90s (Figure 50). Coinciding with the introduction of

antiretroviral therapy (ART) for HIV treatment in 1996, new diagnoses began to steadily decline, as did deaths among people living with HIV (PLWH) as PLWH began to live longer, healthier lives (Metro Public Health Department, 2018).

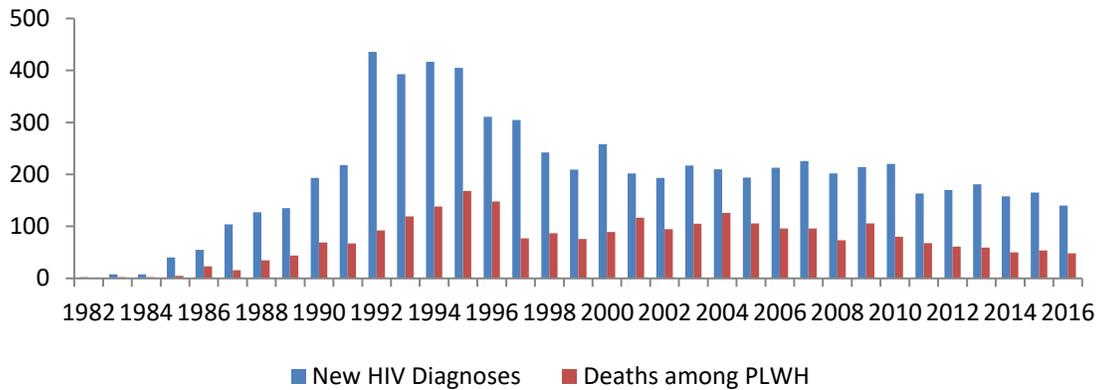


Figure 50: Number of new HIV diagnoses and deaths among people living with HIV (PLWH), 1982-2016 – Davidson County, MPH (2017).

Certain subpopulations continue to be disproportionately affected by HIV in Davidson County. Over the past ten years, transmission of HIV among gay, bisexual, and other MSM have persisted (Figure 51).

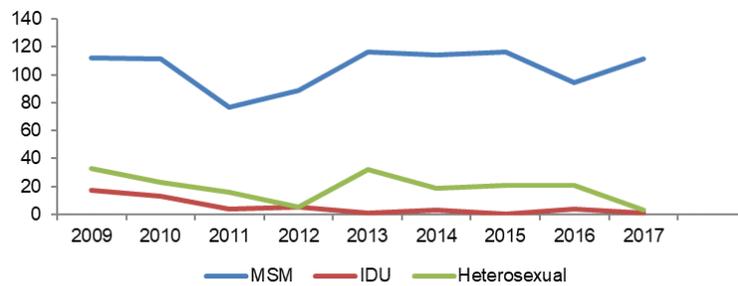


Figure 51: Number of new HIV diagnoses by transmission category, 2008-2017 – Davidson County, MPH (2017).

While new diagnoses among people who inject drugs (PWID) declined during this period, primarily attributed to national harm reduction efforts, PWID remain a priority population for prevention in the context of a burgeoning opioid epidemic and vulnerability for rapid transmission of HIV due to injection drug use.

By the end of 2017, there were 4,103 people living with diagnosed HIV in Nashville, the majority (78%) of whom were male. Racial disparities are encountered in the HIV

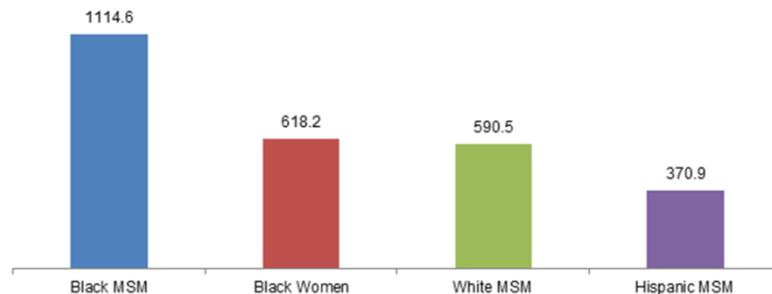
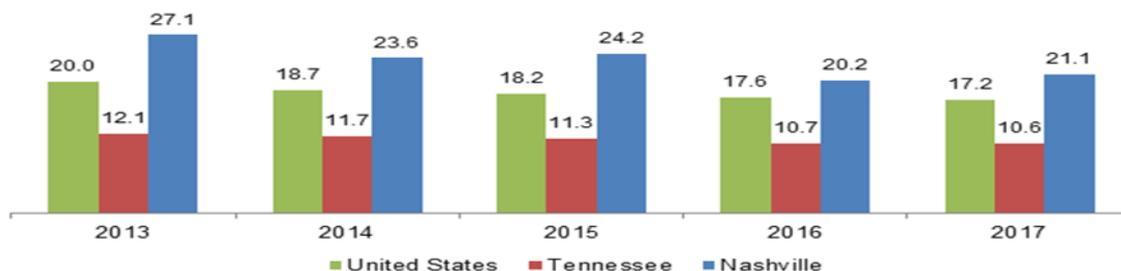


Figure 52: Rates of PLWH by race and sex, MPH (2018).

population (**Figure 52**); despite accounting for only 27% of the Nashville population, non-Hispanic blacks represent 54% of PLWH (Metro Public Health Department, 2018).

In 2017, there were 146 new HIV diagnoses in Davidson County; 11% of newly-diagnosed individuals were classified as stage 3 (AIDS) either at diagnosis or within 12 months. Over the last five years, new HIV diagnoses have decreased by 18%. In 2017, the rate was 21.1. Compared to state and national levels, the incidence rate in Davidson County has remained consistently higher than rates observed across Tennessee and the nation (**Figure 53**).



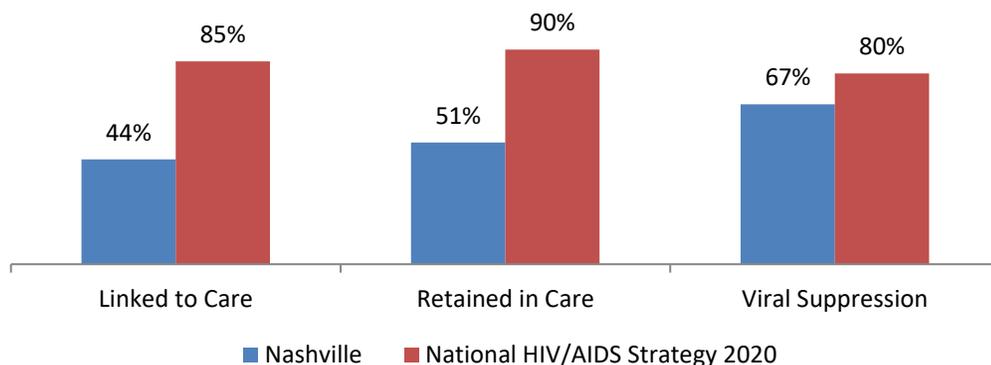
*Figure 53: Rate of new HIV diagnoses 2013-2017, MPH (2018).*

### HIV Continuum of Care

To achieve optimal health outcomes for PLWH, it is vital that people are identified soon after being infected with HIV and linked to HIV medical care immediately. The importance of initiating such a rapid response upon initial HIV infection is compounded by the number of PLWH who are unaware of their disease and, as a result, are not receiving regular care and being prescribed antiretroviral therapy. To assess certain indicators of the National HIV/AIDS Strategy (NHAS), the CDC follows the HIV Care Continuum. This continuum is defined as a series of steps an individual goes through upon receiving an HIV diagnosis until achieving viral suppression through successful treatment with HIV medications.

In 2016, 44% of persons newly-diagnosed with HIV were linked to care within 30 days, below the NHAS goal of 85%.

Similarly, the percentage of PLWH retained in care by the end of 2016 (51%) was lower than the 90% NHAS goal. However, among those PLWH who were retained in care, 67% were virally suppressed (**Figure 54**).



*Figure 54: HIV Continuum of Care, Nashville, MPH (2018).*

compared to the NHAS goal of 80% (Metro Public Health Department, 2018).

*Linked to care: The percentage of people receiving a diagnosis of HIV in a given calendar year who had one or more documented viral load or CD4+ test within 30 days of diagnosis.*

*Retained in care: The percentage of PLWH who received two or more viral loads or CD4+ tests, performed at least three months apart during a given calendar year.*

*Viral suppression: Percentage of PLWH retained in care who received a viral load test result of <200 copies/mL at the most recent viral load test during a given calendar year.*

## Tuberculosis

Tuberculosis (TB) is often thought of as a disease that burdens the developing world, but the United States still reports cases of TB in both native-born residents and immigrant populations. TB is a bacterial disease that can colonize any part of the body except teeth, hair, and fingernails. TB disease is the often communicable, symptomatic form of TB, and TB infection (TBI) is the noncommunicable, asymptomatic form.

Patients referred to as TB cases are those who have TB disease. Davidson County's rates of TB are higher than the state, where a downward trend in incidence rates has occurred since 2014 (Figure 55), compared to the generally stable rates in the State as a whole.

When stratified by race or ethnicity, the greatest disparities in TB incidence are clear. From 2013-2017, incidence rates among Asians were between three and ten times the total rate of TB disease in Davidson County.

Incidence rates in the African American population were between 1.5 and 2 times the total rate, while incidence rates among Hispanics were

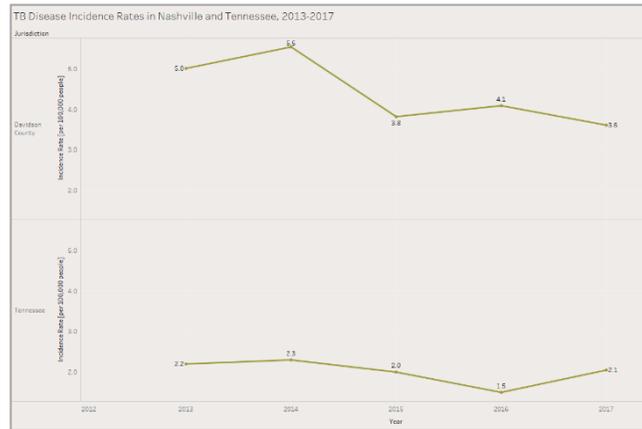


Figure 55: TB Disease Rates, Nashville, MPH (2018).

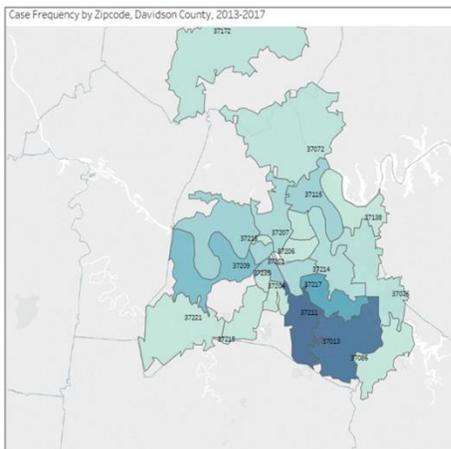


Figure 56: TB Case frequency by zip code 2013-2017, MPDH (2018).

sporadically above and below the total incidence rate for Davidson County.

Cases of TB in Davidson County are also spatially clustered. This closely follows the demographics of the city; many immigrants and refugees resettle in South Davidson County, so it is unsurprising that many cases reside in the area given the disparity in incidence rates by race as well as the immigration status of local cases (Figure 56).

It is estimated that only 37% of African American TBI patients completed treatment compared to an estimated 54% of White patients.

## Systems Reviews

The MAPP process requires two system assessments. The Local Public Health System Assessment measures how well different local public health system partners work together to deliver the Essential Public Health Services while the Forces of Change Assessment identifies forces that may affect a community and opportunities and threats associated with those forces. The details of each assessment are below.

### Forces of Change Assessment

The purpose of the Forces of Change Assessment is to identify forces - such as trends, factors, or events - that have the potential to impact the health and quality of life of the community and the work of the local public health system. The following are examples of trends, forces and events:

- **Trends** - Patterns over time, such as migration in and out of the community or growing disillusionment with government
- **Factors** - Discrete elements, such as a community's large ethnic population, an urban setting, or proximity to a major waterway
- **Events** - One time occurrences, such as a hospital closure, a natural disaster, or the passage of new legislation

### Methodology

The Forces of Change Assessment took place on October 26, 2018 at the Matthew Walker Comprehensive Health Center in Nashville. A facilitated consensus building process (Technology of Participation) was used to generate answers to the following question: "What is occurring or might occur that affects the health of our community or local public health system?"

Twenty diverse stakeholders, representing the Nashville Chamber of Commerce, Metro Nashville Planning Department, Metro Transit Authority, Juvenile Justice Center, Metro Public Health Department, Metro IT, Greater Nashville Regional Council, Ascension-St. Thomas Health System, federally-qualified health centers, non-profit organizations and others gathered to answer the question.

Facilitators led the process by:

1. Leading the participants through a data review of existing local indicators related to Forces of Change;
2. Asking participants to brainstorm individually and list forces;
3. Asking participants to consolidate forces by prioritization in groups of 4-6.

Participants brainstormed trends, factors, and events, organizing them into common themes and then providing an overarching 'force' for each of the category columns. During the consensus workshop, participants were charged with answering the second assessment question: "What specific threats or opportunities are generated by these occurrences?" Participants generated threats and opportunities for all ideas within each force of change category.

The results of this assessment will be used with the other assessments to form priority areas for Nashville's 2020-2022 Community Health Improvement Plan (CHIP).

## Results

### **Institutional Racism**

<p style="text-align: center;"><b><u>Threats Posed</u></b></p> <ul style="list-style-type: none"> <li>• Disintegration of society</li> <li>• Decreased access to resources</li> <li>• Increased displacement</li> <li>• Increased reverse labeling</li> <li>• It is ingrained nature</li> <li>• Poor health outcomes</li> <li>• Inequity of opportunity</li> </ul>	<p style="text-align: center;"><b><u>Opportunities Created</u></b></p> <ul style="list-style-type: none"> <li>• To recognize and accept it is real</li> <li>• To eliminate it</li> <li>• To raise consciousness among institutions</li> </ul>
<p style="text-align: center;"><b><u>Recommendations (to prepare for/mitigate threats or leverage/maximize opportunities)</u></b></p> <ul style="list-style-type: none"> <li>• Examine and share data</li> <li>• Consensus building around the fact of it</li> <li>• Policy changes (equity) based on data</li> </ul>	<p style="text-align: center;"><b><u>Partnerships (Stakeholders to include when planning for force)</u></b></p> <ul style="list-style-type: none"> <li>• Affected communities</li> <li>• Government</li> <li>• Churches</li> <li>• Academia</li> <li>• Everyone</li> </ul>

### **Fragmented Safety Net**

<p style="text-align: center;"><b><u>Threats Posed</u></b></p> <ul style="list-style-type: none"> <li>• Disease, death, injury</li> <li>• Inefficient expenditure of limited resources</li> </ul>	<p style="text-align: center;"><b><u>Opportunities Created</u></b></p> <ul style="list-style-type: none"> <li>• Strategic/systems approach</li> <li>• Examine money streams</li> <li>• Increase personal health behaviors</li> </ul>
<p style="text-align: center;"><b><u>Recommendations (to prepare for/mitigate threats or leverage/maximize opportunities)</u></b></p> <ul style="list-style-type: none"> <li>• Expand Medicaid</li> <li>• Model of care for community</li> <li>• Approach it strategically</li> </ul>	<p style="text-align: center;"><b><u>Partnerships (Stakeholders to include when planning for force)</u></b></p> <ul style="list-style-type: none"> <li>• Safety Net consortium</li> <li>• Metro/NGH</li> <li>• Universities</li> <li>• Community members</li> </ul>

### Technological Displacement

<b><u>Threats Posed</u></b>	<b><u>Opportunities Created</u></b>
<ul style="list-style-type: none"> <li>• Loss of jobs</li> </ul>	<ul style="list-style-type: none"> <li>• Create a new labor force for new technologically driven jobs</li> </ul>
<b><u>Recommendations (to prepare for/mitigate threats or leverage/maximize opportunities)</u></b>	<b><u>Partnerships (Stakeholders to include when planning for force)</u></b>
<ul style="list-style-type: none"> <li>• Train/retrain for emergency roles (youth and adults)</li> <li>• Monitor/forecast trends to prepare workforce</li> </ul>	<ul style="list-style-type: none"> <li>• Create more public/private partnerships to create job opportunities for high school graduates</li> </ul>

### Cyber Attack

<b><u>Threats Posed</u></b>	<b><u>Opportunities Created</u></b>
<ul style="list-style-type: none"> <li>• System failures (unanticipated)</li> <li>• Massive financial recovery</li> <li>• Public safety</li> <li>• Increase in crime</li> </ul>	<ul style="list-style-type: none"> <li>• Opportunity to build better system</li> </ul>
<b><u>Recommendations (to prepare for/mitigate threats or leverage/maximize opportunities)</u></b>	<b><u>Partnerships (Stakeholders to include when planning for force)</u></b>
<ul style="list-style-type: none"> <li>• Plan for redundancy</li> <li>• Create a body to review/develop a plan</li> </ul>	<ul style="list-style-type: none"> <li>• IT community</li> </ul>

### Disease Outbreak

<b><u>Threats Posed</u></b>	<b><u>Opportunities Created</u></b>
<ul style="list-style-type: none"> <li>• Mass morbidity/mass casualties</li> <li>• Strain on existing resources</li> <li>• Lack of existing/sufficient resources</li> </ul>	<ul style="list-style-type: none"> <li>• Create more jobs of emergency preparedness</li> <li>• New lessons learned from emergency</li> <li>• Collaborations</li> </ul>
<b><u>Recommendations (to prepare for/mitigate threats or leverage/maximize opportunities)</u></b>	<b><u>Partnerships (Stakeholders to include when planning for force)</u></b>
<ul style="list-style-type: none"> <li>• Increased access to vaccination</li> <li>• Increased surveillance</li> <li>• Audit existing systems</li> </ul>	<ul style="list-style-type: none"> <li>• Health Department</li> <li>• Healthcare system</li> <li>• First responders</li> </ul>

### Insufficient Transportation

<p style="text-align: center;"><b><u>Threats Posed</u></b></p> <ul style="list-style-type: none"> <li>• Access to job opportunities</li> <li>• Increased stress of traffic</li> <li>• Climate-emissions</li> <li>• Increased obesity/sedentary</li> </ul>	<p style="text-align: center;"><b><u>Opportunities Created</u></b></p> <ul style="list-style-type: none"> <li>• Multi-modal/alternative transportation</li> <li>• Green space</li> <li>• Less emissions, driverless cars</li> <li>• Decreased need for parking</li> </ul>
<p style="text-align: center;"><b><u>Recommendations (to prepare for/mitigate threats or leverage/maximize opportunities)</u></b></p> <ul style="list-style-type: none"> <li>• Mass transit</li> <li>• Political will</li> <li>• Technological advances</li> <li>• Complete streets</li> <li>• Increased awareness/messaging about alternative transit</li> <li>• Promote telecommuting</li> </ul>	<p style="text-align: center;"><b><u>Partnerships (Stakeholders to include when planning for force)</u></b></p> <ul style="list-style-type: none"> <li>• More public and private partnerships</li> </ul>

### Budget Incongruent with Growth (Tax Base)

<p style="text-align: center;"><b><u>Threats Posed</u></b></p> <ul style="list-style-type: none"> <li>• Lack of services/cut services</li> <li>• Poor services/infrastructure</li> <li>• City bankruptcy</li> <li>• Workforce recruitment</li> </ul>	<p style="text-align: center;"><b><u>Opportunities Created</u></b></p> <ul style="list-style-type: none"> <li>• Increased taxes</li> <li>• Improved services</li> </ul>
<p style="text-align: center;"><b><u>Recommendations (to prepare for/mitigate threats or leverage/maximize opportunities)</u></b></p> <ul style="list-style-type: none"> <li>• Be a good steward of the budget</li> <li>• Increase messaging of urban vs. rural services (ex. Gulch paying for services across county)</li> <li>• Increase and diversify taxes/tax base</li> <li>• Change false assumptions about government waste</li> </ul>	<p style="text-align: center;"><b><u>Partnerships (Stakeholders to include when planning for force)</u></b></p>

### Threats to Immigrants

<p style="text-align: center;"><b><u>Threats Posed</u></b></p> <ul style="list-style-type: none"> <li>• Lack of healthcare</li> <li>• Marginalization</li> <li>• Isolation</li> <li>• Mistrust of systems, i.e. banking, healthcare</li> <li>• Target for violence</li> <li>• Toxic stress</li> </ul>	<p style="text-align: center;"><b><u>Opportunities Created</u></b></p> <ul style="list-style-type: none"> <li>• Cultural awareness/diversity of thought</li> <li>• Improve public safety</li> </ul>
<p style="text-align: center;"><b><u>Recommendations (to prepare for/mitigate threats or leverage/maximize opportunities)</u></b></p> <ul style="list-style-type: none"> <li>• Education-diversity training</li> <li>• Create community/social connection</li> <li>• Planned community response to ICE raid</li> </ul>	<p style="text-align: center;"><b><u>Partnerships (Stakeholders to include when planning for force)</u></b></p> <ul style="list-style-type: none"> <li>• Local politicians to connect to resources</li> </ul>

### Affordable Care Act Policy Changes

<p style="text-align: center;"><b><u>Threats Posed</u></b></p> <ul style="list-style-type: none"> <li>• Discrimination due to pre-existing conditions</li> <li>• Decrease access to coverage</li> <li>• Increased cost of insurance</li> </ul>	<p style="text-align: center;"><b><u>Opportunities Created</u></b></p> <ul style="list-style-type: none"> <li>• Affordable/connected service</li> <li>• Increase access to coverage</li> <li>• Decrease insurance cost</li> </ul>
<p style="text-align: center;"><b><u>Recommendations (to prepare for/mitigate threats or leverage/maximize opportunities)</u></b></p> <ul style="list-style-type: none"> <li>• Increase safety net services</li> <li>• Alignment between services</li> <li>• Awareness/managing of services</li> </ul>	<p style="text-align: center;"><b><u>Partnerships (Stakeholders to include when planning for force)</u></b></p> <ul style="list-style-type: none"> <li>• More public and private partnerships</li> </ul>

### Lack of Affordable Healthcare

<p style="text-align: center;"><b><u>Threats Posed</u></b></p> <ul style="list-style-type: none"> <li>• Continued chronic disease</li> <li>• Death</li> <li>• Poor health</li> <li>• Access</li> <li>• Lack of prevention</li> </ul>	<p style="text-align: center;"><b><u>Opportunities Created</u></b></p> <ul style="list-style-type: none"> <li>• Increased longevity</li> <li>• Increased prevention</li> <li>• Increased access</li> </ul>
<p style="text-align: center;"><b><u>Recommendations (to prepare for/mitigate threats or leverage/maximize opportunities)</u></b></p> <ul style="list-style-type: none"> <li>• Lower healthcare costs</li> <li>• Encourage private business to offer more coverage</li> </ul>	<p style="text-align: center;"><b><u>Partnerships (Stakeholders to include when planning for force)</u></b></p> <ul style="list-style-type: none"> <li>• More public and private partnerships</li> </ul>

### Impact of Social Media

<p style="text-align: center;"><b><u>Threats Posed</u></b></p> <ul style="list-style-type: none"> <li>• Bullying</li> <li>• Increased isolation</li> <li>• Increased withdrawal</li> <li>• Addiction to social media</li> <li>• Accessing inappropriate sites</li> <li>• Health risks</li> </ul>	<p style="text-align: center;"><b><u>Opportunities Created</u></b></p> <ul style="list-style-type: none"> <li>• Anti-bullying campaigns</li> <li>• Positive Social Media</li> <li>• Can access positive support groups</li> </ul>
<p style="text-align: center;"><b><u>Recommendations (to prepare for/mitigate threats or leverage/maximize opportunities)</u></b></p> <ul style="list-style-type: none"> <li>• Anti-bullying campaigns</li> <li>• Positive Social Media</li> <li>• Can access positive support groups</li> </ul>	<p style="text-align: center;"><b><u>Partnerships (Stakeholders to include when planning for force)</u></b></p> <ul style="list-style-type: none"> <li>• Schools</li> <li>• Public/private partnerships</li> <li>• Non-profit organizations</li> <li>• Corporations</li> </ul>

### Increased hate crimes

<p style="text-align: center;"><b><u>Threats Posed</u></b></p> <ul style="list-style-type: none"> <li>• Death and injury</li> <li>• Increased marginalization</li> <li>• Increased psychological damage</li> <li>• Increased polarization</li> </ul>	<p style="text-align: center;"><b><u>Opportunities Created</u></b></p> <ul style="list-style-type: none"> <li>• Conversation</li> <li>• Looking for root causes</li> <li>• Opportunity for consensus building</li> <li>• Opportunity to be more inclusive</li> </ul>
<p style="text-align: center;"><b><u>Recommendations (to prepare for/mitigate threats or leverage/maximize opportunities)</u></b></p> <ul style="list-style-type: none"> <li>• Community engagement</li> <li>• Clear definition of hate crime</li> <li>• Increase consciousness around the issue</li> <li>• Increase access to mental health services</li> <li>• Increase level of moral consciousness (God)</li> </ul>	<p style="text-align: center;"><b><u>Partnerships (Stakeholders to include when planning for force)</u></b></p> <ul style="list-style-type: none"> <li>• Churches/temples/religious community</li> <li>• Include all stakeholders, including hate groups</li> <li>• Government/non-governmental organizations</li> <li>• Victims and perpetrators</li> </ul>

### Increased Psychological Trauma

<p style="text-align: center;"><b><u>Threats Posed</u></b></p> <ul style="list-style-type: none"> <li>• Institutional stress (hospitals/jails, etc.)</li> <li>• Increased cost</li> <li>• Decreased productivity</li> <li>• Disintegration of society</li> <li>• Isolation</li> <li>• Suicide/injury</li> <li>• Increased ACEs and all implications</li> <li>• Increased chronic disease</li> </ul>	<p style="text-align: center;"><b><u>Opportunities Created</u></b></p> <ul style="list-style-type: none"> <li>• Increase opportunity for collective impact response</li> <li>• Increase consciousness with in public to gather more resources</li> </ul>
<p style="text-align: center;"><b><u>Recommendations (to prepare for/mitigate threats or leverage/maximize opportunities)</u></b></p> <ul style="list-style-type: none"> <li>• ID early</li> <li>• Collective impact response</li> </ul>	<p style="text-align: center;"><b><u>Partnerships (Stakeholders to include when planning for force)</u></b></p> <ul style="list-style-type: none"> <li>• ACE Nashville</li> <li>• People living the experience</li> <li>• MNPS/MPHD/Justice System/Mental health services/early childhood organizations</li> <li>• Pediatricians/health care providers (include training)</li> </ul>

### Hazardous Materials Release

<p style="text-align: center;"><b><u>Threats Posed</u></b></p> <ul style="list-style-type: none"> <li>• Trucks &amp; Trains carrying hazardous waste through Nashville</li> <li>• Water treatment hazards</li> <li>• Domestic terrorist attacks</li> <li>• Accidents can happen at anytime</li> <li>• Local facilities that store hazardous materials</li> </ul>	<p style="text-align: center;"><b><u>Opportunities Created</u></b></p> <ul style="list-style-type: none"> <li>• Increase capacity to handle disasters             <ul style="list-style-type: none"> <li>◦ Drills, training and prep on a community-wide level</li> </ul> </li> <li>• Increase public notification methods and education about response (public)</li> </ul>
<p style="text-align: center;"><b><u>Recommendations (to prepare for/mitigate threats or leverage/maximize opportunities)</u></b></p> <ul style="list-style-type: none"> <li>• Central command center (OEM) improve preparedness and response planning</li> <li>• Ensure first responders are trained</li> <li>• Better federal law to navigate private operators (CSX train) and city/state laws</li> </ul>	<p style="text-align: center;"><b><u>Partnerships (Stakeholders to include when planning for force)</u></b></p> <ul style="list-style-type: none"> <li>• OEM</li> <li>• Public Safety (Police/Fire)</li> <li>• Health Dept.</li> <li>• Public Works</li> <li>• Media (print &amp; electronic)</li> <li>• Environmental agencies (including local/state/federal/advocates)</li> </ul>

**Lack of mental health resources/substance abuse**

<p align="center"><b><u>Threats Posed</u></b></p> <ul style="list-style-type: none"> <li>• People with mental health disease are treated as criminals</li> <li>• People with mental health conditions don't seek medical treatment for any and all conditions</li> <li>• Increased substance abuse</li> </ul>	<p align="center"><b><u>Opportunities Created</u></b></p> <ul style="list-style-type: none"> <li>• Destigmatize mental health</li> <li>• Decriminalize mental health diagnoses</li> <li>• Increased education on mental health in a variety of places (the fact that lots of people have mental health conditions and where to go for resources and help)</li> </ul>
<p align="center"><b><u>Recommendations (to prepare for/mitigate threats or leverage/maximize opportunities)</u></b></p> <ul style="list-style-type: none"> <li>• Increase funding for mental health services</li> <li>• Treat root cause of mental health conditions using best practices</li> <li>• Ensure that insurance properly covers mental health and root causes of substance abuse</li> </ul>	<p align="center"><b><u>Partnerships (Stakeholders to include when planning for force)</u></b></p> <ul style="list-style-type: none"> <li>• Criminal justice system</li> <li>• Health care providers</li> <li>• Law enforcement/first responders (training them on how to use Narcan and not shoot people with mental health condition)</li> <li>• Advocates</li> <li>• Employers (need to provide mental health services without threat of stigma/losing your job)</li> </ul>

**School-to-Prison Pipeline**

<p align="center"><b><u>Threats Posed</u></b></p> <ul style="list-style-type: none"> <li>• Reduced workforce</li> <li>• Perpetuation of inequality and poverty</li> <li>• Eat up any portion of any budget</li> <li>• Gentrification/involuntary displacement</li> <li>• Mental health/ACEs/breakdown of social networks</li> <li>• Increased holes in safety net</li> </ul>	<p align="center"><b><u>Opportunities Created</u></b></p> <ul style="list-style-type: none"> <li>• Be intentional to decrease school to prison pipeline with creative policing and design of policies that have led to historically disinvested communities</li> <li>• Recognize the untapped potential/skills/talents of people</li> </ul>
<p align="center"><b><u>Recommendations (to prepare for/mitigate threats or leverage/maximize opportunities)</u></b></p> <ul style="list-style-type: none"> <li>• Reviewing policies/laws that exacerbate school to prison pipeline</li> <li>• Affordable housing</li> <li>• Disincentivize prison industrial complex so that they don't keep profiting off of people's misfortune</li> </ul>	<p align="center"><b><u>Partnerships (Stakeholders to include when planning for force)</u></b></p> <ul style="list-style-type: none"> <li>• State legislature</li> <li>• Bail bondsmen</li> <li>• Judges</li> <li>• Private prisons</li> </ul>

### Increased Population

<p style="text-align: center;"><b><u>Threats Posed</u></b></p> <ul style="list-style-type: none"> <li>• Health care</li> <li>• Social services</li> <li>• Transportation/infrastructure</li> <li>• Hate crimes</li> <li>• Lack of housing</li> <li>• School system stress</li> </ul>	<p style="text-align: center;"><b><u>Opportunities Created</u></b></p> <ul style="list-style-type: none"> <li>• Increased resources for people who don't speak English</li> <li>• Increased diversity and the opportunity to embrace diversity</li> <li>• Diverse skill sets and workforce</li> <li>• New ideas</li> </ul>
<p style="text-align: center;"><b><u>Recommendations (to prepare for/mitigate threats or leverage/maximize opportunities)</u></b></p> <ul style="list-style-type: none"> <li>• Invest in infrastructure and a rate that is fast enough to support growing population</li> <li>• Regional plan for infrastructure, social services, health care, aging, community development/affordable housing, schools</li> <li>• Educate the public about new, diverse populations</li> </ul>	<p style="text-align: center;"><b><u>Partnerships (Stakeholders to include when planning for force)</u></b></p> <ul style="list-style-type: none"> <li>• Business</li> <li>• Civic</li> <li>• Everyone-all jurisdictions, all sectors</li> </ul>

### Lack of affordable housing

<p style="text-align: center;"><b><u>Threats Posed</u></b></p> <ul style="list-style-type: none"> <li>• Displacement (involuntary) of long-term residents/generational</li> <li>• We will become a city of high income earners ("the haves vs. the have nots")</li> <li>• Loss of social networks/communities</li> </ul>	<p style="text-align: center;"><b><u>Opportunities Created</u></b></p> <ul style="list-style-type: none"> <li>• Development of diverse housing types (not just new construction)</li> <li>• Improving planning/zoning laws/codes</li> <li>• Involve more people in the development of housing developments</li> </ul>
<p style="text-align: center;"><b><u>Recommendations (to prepare for/mitigate threats or leverage/maximize opportunities)</u></b></p> <ul style="list-style-type: none"> <li>• Intentionally develop and update existing laws, policies and funding sources to support affordable housing for all income levels</li> <li>• Identify best practices and creative solutions to affordable housing</li> </ul>	<p style="text-align: center;"><b><u>Partnerships (Stakeholders to include when planning for force)</u></b></p> <ul style="list-style-type: none"> <li>• MDHA</li> <li>• Affected people-those at risk of involuntary displacement</li> <li>• Those involved with: NOAH, Promise Zones, Community Land Trust coalition, etc. (advocates)</li> </ul>

## Police-Community Relations

<p style="text-align: center;"><b><u>Threats Posed</u></b></p> <p><b>When Poor:</b></p> <ul style="list-style-type: none"> <li>• Increased intimidation/violence</li> <li>• High stress/low sense of security in afflicted neighborhoods</li> <li>• Fewer reported incidents because of reticence</li> <li>• In emergencies, less cooperation and impacted services delivered</li> </ul>	<p style="text-align: center;"><b><u>Opportunities Created</u></b></p> <p><b>When Positive:</b></p> <ul style="list-style-type: none"> <li>• Community policing</li> <li>• More secure neighborhoods</li> <li>• Stress and trauma of neighborhoods decreases</li> <li>• Better communication</li> <li>• Positive role models for youth</li> </ul>
<p style="text-align: center;"><b><u>Recommendations (to prepare for/mitigate threats or leverage/maximize opportunities)</u></b></p> <ul style="list-style-type: none"> <li>• Community policing</li> <li>• Improve communications</li> <li>• Regular informal engagement</li> <li>• Demographics of force mirror the neighborhoods</li> <li>• Police from the neighborhood</li> <li>• Gather strategies from officers in the neighborhood</li> <li>• Gather strategies from neighbors</li> </ul>	<p style="text-align: center;"><b><u>Partnerships (Stakeholders to include when planning for force)</u></b></p> <ul style="list-style-type: none"> <li>• MNP</li> <li>• Neighbors</li> <li>• Courts</li> <li>• Oversight board</li> <li>• Schools</li> <li>• Local businesses</li> <li>• Churches</li> </ul>

## Gentrification

<p style="text-align: center;"><b><u>Threats Posed</u></b></p> <ul style="list-style-type: none"> <li>• Displacement</li> <li>• Loss of community/identity</li> <li>• Educational instability</li> <li>• Loss of social fabric</li> <li>• Loss of diversity (economic/racial)</li> <li>• Neighbor conflict</li> <li>• Power struggle</li> <li>• “Living while Black” calls</li> <li>• Overreliance on police for disputes</li> <li>• Loss of service in new community</li> </ul>	<p style="text-align: center;"><b><u>Opportunities Created</u></b></p> <ul style="list-style-type: none"> <li>• Increases in taxes</li> <li>• Less segregation by race/income</li> <li>• Affordable housing</li> <li>• Increase investments in historically low invested areas</li> </ul>
<p style="text-align: center;"><b><u>Recommendations (to prepare for/mitigate threats or leverage/maximize opportunities)</u></b></p> <ul style="list-style-type: none"> <li>• Proper use of TIF financing</li> <li>• Policies to increase/retain affordable housing</li> <li>• Incentives for developers</li> <li>• Inclusionary zoning</li> <li>• Cultural leadership (YIMBY-yes in back yard)</li> <li>• Gentrifying areas school groups that support public education</li> </ul>	<p style="text-align: center;"><b><u>Partnerships (Stakeholders to include when planning for force)</u></b></p> <ul style="list-style-type: none"> <li>• State and local government</li> <li>• Representatives from impacted communities</li> <li>• Private developers</li> <li>• Policy makers</li> <li>• Corporate community</li> <li>• Health systems</li> <li>• Universities</li> <li>• Neighborhood associations</li> <li>• A bottom up approach</li> </ul>

### Impact of Chronic Disease

<p style="text-align: center;"><b><u>Threats Posed</u></b></p> <ul style="list-style-type: none"> <li>• Death</li> <li>• Disability</li> <li>• Impaired cognitive development</li> <li>• Inability to work</li> <li>• Economic impact to community</li> </ul>	<p style="text-align: center;"><b><u>Opportunities Created</u></b></p> <ul style="list-style-type: none"> <li>• Lower healthcare costs</li> <li>• More employee opportunity</li> </ul>
<p style="text-align: center;"><b><u>Recommendations (to prepare for/mitigate threats or leverage/maximize opportunities)</u></b></p> <ul style="list-style-type: none"> <li>• Reduce smoking</li> <li>• Increase physical activity across lifespan</li> <li>• Increase healthy eating and policy/systems/environmental change</li> <li>• Strengthen fabric of safety net</li> <li>• Increase access to healthcare</li> </ul>	<p style="text-align: center;"><b><u>Partnerships (Stakeholders to include when planning for force)</u></b></p> <ul style="list-style-type: none"> <li>• Safety net consortium</li> <li>• Environmental agencies</li> <li>• Neighborhoods</li> <li>• Health care companies</li> <li>• Schools</li> </ul>

### Homelessness

<p style="text-align: center;"><b><u>Threats Posed</u></b></p> <ul style="list-style-type: none"> <li>• Death</li> <li>• Disease</li> <li>• Crime rate</li> <li>• To tourism/public nuisance</li> <li>• Policing</li> <li>• Over incarceration and criminal justice entanglement</li> <li>• To healthcare system/emergency</li> <li>• Educational attainment of children (toxic stress)</li> <li>• Mental health systems</li> </ul>	<p style="text-align: center;"><b><u>Opportunities Created</u></b></p> <ul style="list-style-type: none"> <li>• Forces us to look at affordable housing</li> <li>• Live our values</li> <li>• Spiritual/moral growth</li> <li>• Focus on mental health</li> <li>• Evaluate root cause</li> </ul>
<p style="text-align: center;"><b><u>Recommendations (to prepare for/mitigate threats or leverage/maximize opportunities)</u></b></p> <ul style="list-style-type: none"> <li>• Housing first policy &amp; practice</li> <li>• Prioritize</li> <li>• Look at sustainable structure beyond largesse</li> <li>• Drug and alcohol treatment</li> <li>• Diversion (criminal justice)</li> <li>• Employment opportunities</li> <li>• Destigmatization awareness campaign</li> </ul>	<p style="text-align: center;"><b><u>Partnerships (Stakeholders to include when planning for force)</u></b></p> <ul style="list-style-type: none"> <li>• Police/criminal justice</li> <li>• Local government</li> <li>• Homeless services agencies</li> <li>• Health agencies</li> <li>• Schools</li> </ul>

### Political Climate

<p style="text-align: center;"><b><u>Threats Posed</u></b></p> <ul style="list-style-type: none"> <li>• Policy paralysis</li> <li>• All talk no action</li> <li>• Very low trust</li> <li>• Can't believe anything</li> <li>• Too partisan</li> <li>• Apathy</li> </ul>	<p style="text-align: center;"><b><u>Opportunities Created</u></b></p> <ul style="list-style-type: none"> <li>• Find common ground</li> <li>• Cities rise up and lead around human factors</li> <li>• Engagement</li> </ul>
<p style="text-align: center;"><b><u>Recommendations (to prepare for/mitigate threats or leverage/maximize opportunities)</u></b></p> <ul style="list-style-type: none"> <li>• Civic engagement</li> <li>• Build civic infrastructure for bottom up action (localism)</li> </ul>	<p style="text-align: center;"><b><u>Partnerships (Stakeholders to include when planning for force)</u></b></p> <ul style="list-style-type: none"> <li>• Parties</li> <li>• Community based organizations of disenfranchised</li> </ul>

### Food insecurity

<p style="text-align: center;"><b><u>Threats Posed</u></b></p> <ul style="list-style-type: none"> <li>• Malnutrition</li> <li>• Obesity</li> <li>• Poor health</li> <li>• Stunted cognitive growth</li> <li>• Infant mortality</li> <li>• Educational attainment</li> <li>• Stuck in survival mode-Maslow</li> <li>• Caretaker stress</li> <li>• Budget squeeze/tradeoffs</li> <li>• Senior isolation</li> <li>• Increased senior frailty/decreased lifespan</li> </ul>	<p style="text-align: center;"><b><u>Opportunities Created</u></b></p> <ul style="list-style-type: none"> <li>• Change the community conversation from charity to public support</li> <li>• Economic development and jobs in processing and creating food</li> <li>• Look at areas as markets</li> </ul>
<p style="text-align: center;"><b><u>Recommendations (to prepare for/mitigate threats or leverage/maximize opportunities)</u></b></p> <ul style="list-style-type: none"> <li>• Decentralize food pantries</li> <li>• Policies that prioritize local food systems</li> <li>• Discussion on food availability as new products-complete neighborhoods</li> <li>• Total livelihood assessments</li> <li>• Enhance role of Farmers Market</li> <li>• Policies to address food deserts</li> <li>• Support healthy meals in schools</li> </ul>	<p style="text-align: center;"><b><u>Partnerships (Stakeholders to include when planning for force)</u></b></p> <ul style="list-style-type: none"> <li>• Groceries</li> <li>• Major food buyers</li> <li>• Food bank</li> <li>• Neighbors and neighborhood groups</li> <li>• Churches</li> <li>• Schools</li> <li>• Aging support agencies</li> </ul>



# National Public Health Performance Standards



### Introduction

The NPHPS Local Public Health System Assessment Report is designed to help health departments and public health system partners create a snapshot of where they are relative to the National Public Health Performance Standards and to progressively move toward refining and improving outcomes for performance across the public health system.

The NPHPS state, local, and governance instruments also offer opportunity and robust data to link to health departments, public health system partners and/or community-wide strategic planning processes, as well as to Public Health Accreditation Board (PHAB) standards. For example, assessment of the environment external to the public health organization is a key component of all strategic planning, and the NPHPS assessment readily provides a structured process and an evidence-base upon which key organizational decisions may be made and priorities established. The assessment may also be used as a component of community health improvement planning processes, such as Mobilizing for Action through Planning and Partnerships (MAPP) or other community-wide strategic planning efforts, including state health improvement planning and community health improvement planning. The NPHPS process also drives assessment and improvement activities that may be used to support a Health Department in meeting PHAB standards. Regardless of whether using MAPP or another health improvement process, partners should use the NPHPS results to support quality improvement.

The self-assessment is structured around the Model Standards for each of the ten Essential Public Health Services, (EPHS), hereafter referred to as the Essential Services, which were developed through a comprehensive, collaborative process involving input from national, state and local experts in public health. Altogether, for the local assessment, 30 Model Standards serve as quality

indicators that are organized into the ten essential public health service areas in the instrument and address the three core functions of public health. **Figure 57** below shows how the ten Essential Services align with the three Core Functions of Public Health.

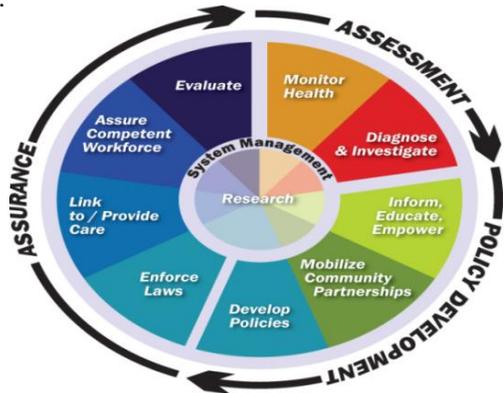


Figure 57 The ten Essential Public Health Services and how they relate to the three Core Functions of Public Health

### Purpose

The primary purpose of the NPHPS Local Public Health System Assessment Report is to promote continuous improvement that will result in positive outcomes for system performance. Local health departments and their public health system partners can use the Assessment Report as a working tool to:

- Better understand current system functioning and performance;
- Identify and prioritize areas of strengths, weaknesses, and opportunities for improvement;
- Articulate the value that quality improvement initiatives will bring to the public health system;
- Develop an initial work plan with specific quality improvement strategies to achieve goals;
- Begin taking action for achieving performance and quality improvement in one or more targeted areas; and
- Re-assess the progress of improvement efforts at regular intervals.

This report is designed to facilitate communication and sharing among and within programs, partners, and organizations, based on a common understanding of how a high performing and effective public health system can operate. This shared frame of reference will help build commitment and focus for setting priorities and improving public health system performance. Outcomes for performance include delivery of all ten essential public health services at optimal levels.

### About the Report

#### **Calculating the Scores**

The NPHPS assessment instruments are constructed using the ten Essential Services as a framework. Within the Local Instrument, each Essential Service includes between 2-4 Model Standards that describe the key aspects of an optimally performing public health system. Each Model Standard is followed by assessment questions that serve as measures of performance.

Responses to these questions indicate how well the Model Standard- which portrays the highest level of performance or "gold standard" - is being met.

**Table 4** below characterizes levels of activity for Essential Services and Model Standards. Using the responses to all of the assessment questions, a scoring process generates a score for each Model Standard, Essential Service, and one overall assessment score.

**Table 4 Summary of Assessment Response Options**

<b>Optimal Activity (76-100%)</b>	Greater than 75% of the activity described within the question is met.
<b>Significant Activity (51-75%)</b>	Greater than 50%, but no more than 75% of the activity described within the question is met.
<b>Moderate Activity (26-50%)</b>	Greater than 25%, but no more than 50% of the activity described within the question is met.
<b>Minimal Activity (1-25%)</b>	Greater than zero, but no more than 25% of the activity described within the question is met.
<b>No Activity (0%)</b>	0% or absolutely no activity.

### Understanding Data Limitations

There are a number of limitations to the NPHPS assessment data due to self-report, wide variations in the breadth and knowledge of participants, the variety of assessment methods used, and differences in interpretation of assessment questions. Data and resultant information should not be interpreted to reflect the capacity or performance of any single agency or organization within the public health system or used for comparisons between jurisdictions or organizations. Use of NPHPS generated data and associated recommendations are limited to guiding an overall public health infrastructure and performance improvement process for the public health system as determined by organizations involved in the assessment.

All performance scores are an average; Model Standard scores are an average of the question scores within that Model Standard, Essential Service scores are an average of the Model Standard scores within that Essential Service and the overall assessment score is the average of the Essential Service scores. The responses to the questions within the assessment are based upon processes that utilize input from diverse system participants with different experiences and perspectives. The gathering of these inputs and the development of a response for each question incorporates an element of subjectivity, which may be minimized through the use of particular assessment methods. Additionally, while certain assessment

methods are recommended, processes differ among sites. The assessment methods are not fully standardized and these differences in administration of the self-assessment may introduce an element of measurement error. In addition, there are differences in knowledge about the public health system among assessment participants. This may lead to some interpretation differences and issues for some questions, potentially introducing a degree of random non-sampling error.

### **Presentation of results**

The NPHPS has attempted to present results - through a variety of figures and tables - in a user-friendly and clear manner. For ease of use, many figures and tables use short titles to refer to Essential Services, Model Standards, and questions. If you are in doubt of these definitions, please refer to the full text in the assessment instruments.

Sites may have chosen to complete two additional questionnaires, the Priority of Model Standards Questionnaire assesses how performance of each Model Standard compares with the priority rating and the Agency Contribution Questionnaire assesses the local health department's contribution to achieving the Model Standard.

### **Results**

Now that your assessment is completed, one of the most exciting, yet challenging opportunities is to begin to review and analyze the findings. As you recall from your assessment, the data you created now establishes the foundation upon which you may set priorities for performance improvement and identify specific quality improvement (QI) projects to support your priorities.

Based upon the responses you provided during your assessment, an average was calculated for each of the ten Essential Services. Each Essential Service score can be interpreted as the overall degree to which your public health system meets the performance standards (quality indicators) for each Essential Service. Scores can range from a minimum value of 0% (no activity is performed pursuant to the standards) to a maximum value of 100% (all activities associated with the standards are performed at optimal levels).

Overall Scores for Each Essential Public Health Service

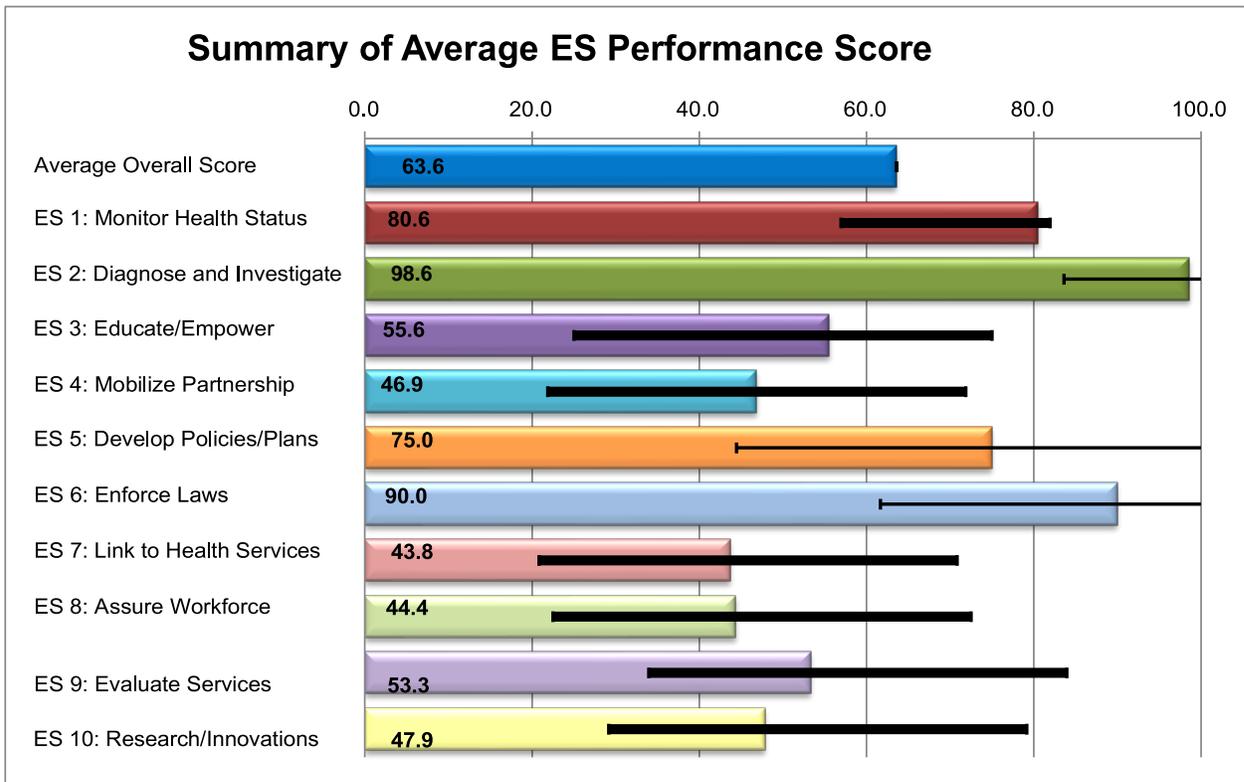
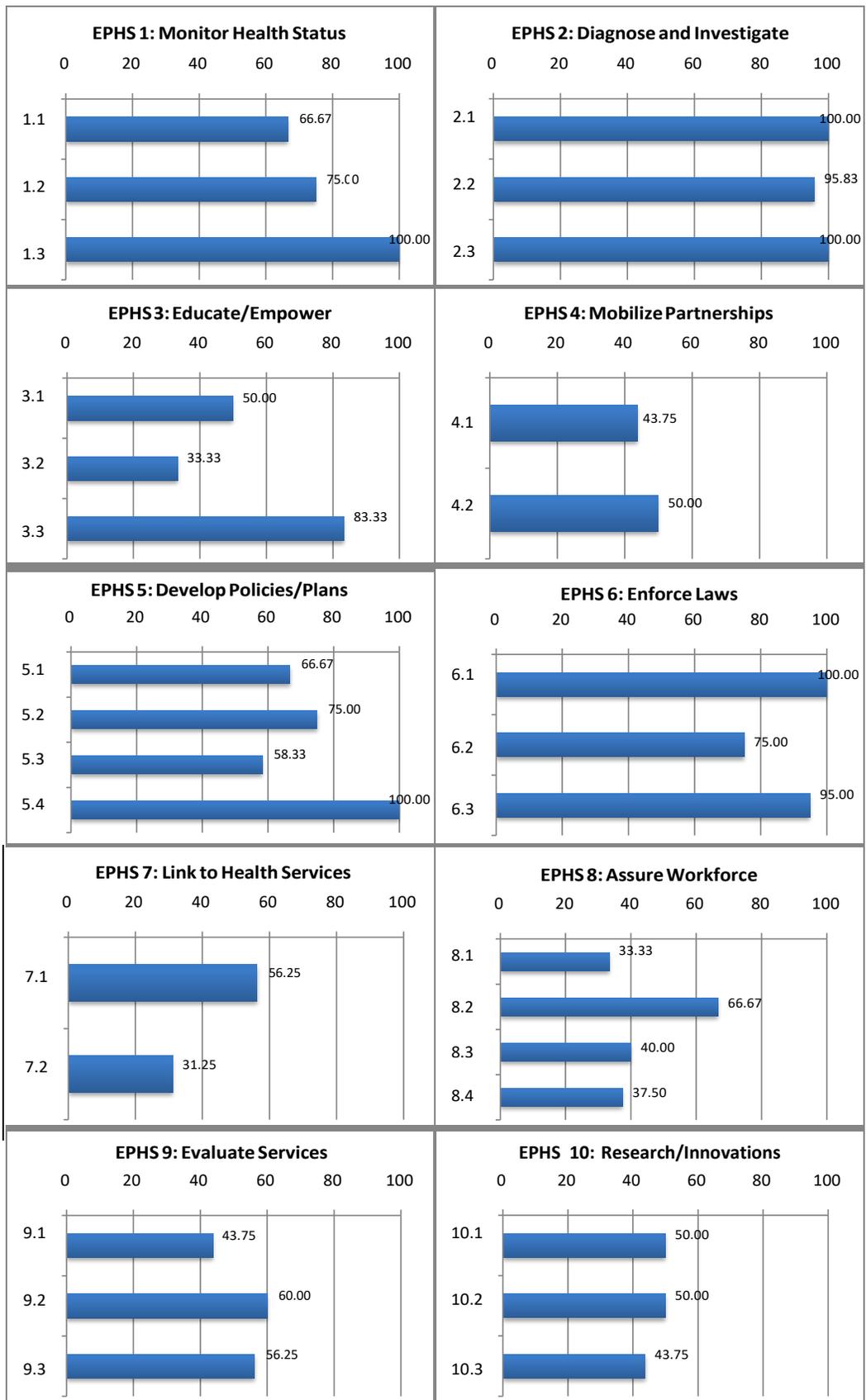


Figure 58 Summary of Average Essential Public Health Service Performance Scores

Performance Scores by Essential Public Health Service for Each Model Standard

Figure 59 and Table 5 on the following pages display the average performance score for each of the Model Standards within each Essential Service. This level of analysis enables you to identify specific activities that contributed to high or low performance within each Essential Service.

Figure 59 Performance Scores by Essential Public Health Service for Each Model Standard



In **Table 5** below, each score (performance, priority, and contribution scores) at the Essential Service level is a calculated average of the respective Model Standard scores within that Essential Service. Note – The priority rating and agency contribution scores will be blank if the Priority of Model Standards Questionnaire and the Agency Contribution Questionnaire are not completed.

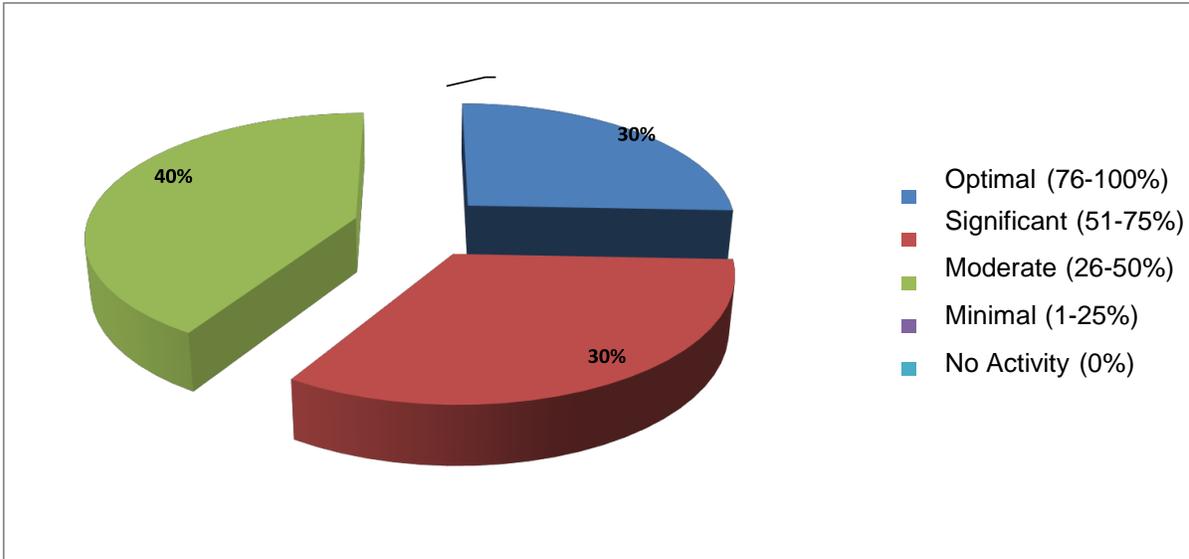
**Table 5 Overall Performance, Priority, and Contribution Scores by Essential Public Health Service and Corresponding Model Standard**

Model Standards by Essential Services	Performance Scores	Priority Rating	Agency Contribution Scores
<b>ES 1: Monitor Health Status</b>	<b>80.6</b>		
1.1 Community Health Assessment	66.7		
1.2 Current Technology	75.0		
1.3 Registries	100.0		
<b>ES 2: Diagnose and Investigate</b>	<b>98.6</b>		
2.1 Identification/Surveillance	100.0		
2.2 Emergency Response	95.8		
2.3 Laboratories	100.0		
<b>ES 3: Educate/Empower</b>	<b>55.6</b>		
3.1 Health Education/Promotion	50.0		
3.2 Health Communication	33.3		
3.3 Risk Communication	83.3		
<b>ES 4: Mobilize Partnerships</b>	<b>46.9</b>		
4.1 Constituency Development	43.8		
4.2 Community Partnerships	50.0		
<b>ES 5: Develop Policies/Plans</b>	<b>75.0</b>		
5.1 Governmental Presence	66.7		
5.2 Policy Development	75.0		
5.3 CHIP/Strategic Planning	58.3		
5.4 Emergency Plan	100.0		
<b>ES 6: Enforce Laws</b>	<b>90.0</b>		
6.1 Review Laws	100.0		
6.2 Improve Laws	75.0		
6.3 Enforce Laws	95.0		
<b>ES 7: Link to Health Services</b>	<b>43.8</b>		
7.1 Personal Health Service Needs	56.3		
7.2 Assure Linkage	31.3		
<b>ES 8: Assure Workforce</b>	<b>44.4</b>		
8.1 Workforce Assessment	33.3		
8.2 Workforce Standards	66.7		
8.3 Continuing Education	40.0		
8.4 Leadership Development	37.5		
<b>ES 9: Evaluate Services</b>	<b>53.3</b>		
9.1 Evaluation of Population Health	43.8		
9.2 Evaluation of Personal Health	60.0		
9.3 Evaluation of LPHS	56.3		
<b>ES 10: Research/Innovations</b>	<b>47.9</b>		
10.1 Foster Innovation	50.0		
10.2 Academic Linkages	50.0		
10.3 Research Capacity	43.8		
<b>Average Overall Score</b>	<b>63.6</b>	<b>NA</b>	<b>NA</b>
<b>Median Score</b>	<b>54.4</b>	<b>NA</b>	<b>NA</b>

### Performance Relative to Optimal Activity

Figures 60 and 61 display the proportion of performance measures that met specified thresholds of achievement for performance standards. The five threshold levels of achievement used in scoring these measures are shown in the legend below. For example, measures receiving a composite score of 76-100% were classified as meeting performance standards at the optimal level.

**Figure 60. Percentage of the system's Essential Services scores that fall within the five activity categories.** This chart provides a high level snapshot of the information found in Figure 62, summarizing the composite performance measures for all 10 Essential Services.



**Figure 61 Percentage of the system's Model Standard scores that fall within the five activity categories.** This chart provides a high level snapshot of the information found in Figure 60, summarizing the composite measures for all 30 Model Standards.

## [Analysis and Discussion Questions](#)

Having a standard way in which to analyze the data in this report is important. This process does not have to be difficult; however, drawing some initial conclusions from your data will prove invaluable as you move forward with your improvement efforts. It is crucial that participants fully discuss the performance assessment results. The bar graphs, charts, and summary information in the Results section of this report should be helpful in identifying high and low performing areas. Please refer to Appendix H of the Local Assessment Implementation Guide. This referenced set of discussion questions will to help guide you as you analyze the data found in the previous sections of this report.

Using the results in this report will help you to generate priorities for improvement, as well as possible improvement projects. Your data analysis should be an interactive process, enabling everyone to participate. Do not be overwhelmed by the potential of many possibilities for QI projects - the point is not that you have to address them all now. Consider this step as identifying possible opportunities to enhance your system performance. Keep in mind both your quantitative data and the qualitative data that you collected during the assessment.

## [Next Steps](#)

Congratulations on your participation in the local assessment process. A primary goal of the NPHPS is that data is used proactively to monitor, assess, and improve the quality of essential public health services. This report is an initial step to identifying immediate actions and activities to improve local initiatives. The results in this report may also be used to identify longer-term priorities for improvement, as well as possible improvement projects.

As noted in the Introduction of this report, NPHPS data may be used to inform a variety of organization and/or systems planning and improvement processes. Plan to use both quantitative data and qualitative data from the assessment to identify improvement opportunities. While there may be many potential quality improvement projects, do not be overwhelmed - the point is not that you have to address them all now. Rather, consider this step as a way to identify possible opportunities to enhance your system performance and plan to use the guidance provided in this section, along with the resources offered in at the end of this section, to develop specific goals for improvement within your public health system and move from assessment and analysis toward action.

**Note:** Communities implementing Mobilizing for Action through Planning and Partnerships (MAPP) may refer to the MAPP guidance for considering NPHPS data along with other assessment data in the Identifying Strategic Issues phase of MAPP.

## [Action Planning](#)

In any systems improvement and planning process, it is important to involve all public health system partners in determining ways to improve the quality of essential public health services provided by the system.

Participation in the improvement and planning activities included in your action plan is the responsibility of all partners within the public health system.

Consider the following points as you build an Action Plan to address the priorities you have identified

- Each public health partner should be considered when approaching quality improvement for your system
- The success of your improvement activities is dependent upon the active participation and contribution of each and every member of the system
- An integral part of performance improvement is working consistently to have long-term effects
- A multi-disciplinary approach that employs measurement and analysis is key to accomplishing and sustaining improvements

You may find that using the simple acronym, '*FOCUS*' is a way to help you to move from assessment and analysis to action.

- F** Find an opportunity for improvement using your results.
- O** Organize a team of public health system partners to work on the improvement. Someone in the group should be identified as the team leader. Team members should represent the appropriate organizations that can make an impact.
- C** Consider the current process, where simple improvements can be made and who should make the improvements.
- U** Understand the problem further if necessary, how and why it is occurring, and the factors that contribute to it. Once you have identified priorities, finding solutions entails delving into possible reasons, or "root causes," of the weakness or problem. Only when participants determine why performance problems (or successes!) have occurred will they be able to identify workable solutions that improve future performance.

Most performance issues may be traced to well-defined system causes, such as policies, leadership, funding, incentives, information, personnel or coordination. Many QI tools are applicable. You may consider using a variety of basic QI tools such as brainstorming, 5-whys, prioritization, or cause and effect diagrams to better understand the problem (refer to Appendix B for resources).

- S** Select the improvement strategies to be made. Consider using a table or chart to summarize your Action Plan. Many resources are available to assist you in putting your plan on paper, but in general you'll want to include the priority selected, the goal, the improvement activities to be conducted, who will carry them out, and the timeline for completing the improvement activities. When complete, your

Action Plan should contain documentation on the indicators to be used, baseline performance levels and targets to be achieved, responsibilities for carrying out improvement activities and the collection and analysis of data to monitor progress.

#### Monitoring and Evaluation: Keys to Success

Monitoring your action plan is a highly proactive and continuous process that is far more than simply taking an occasional "snap-shot" that produces additional data. Evaluation, in contrast to monitoring, provides ongoing structured information that focuses on why results are or are not being met, what unintended consequences may be, or on issues of efficiency, effectiveness, and/or sustainability.

After your Action Plan is implemented, monitoring and evaluation continues to determine whether quality improvement occurred and whether the activities were effective. If the Essential Service performance does not improve within the expected time, additional evaluation must be conducted (an additional QI cycle) to determine why and how you can update your Action Plan to be more effective. The Action Plan can be adjusted as you continue to monitor and evaluate your efforts.

## Individual Questions and Responses

### Performance Scores

ESSENTIAL SERVICE 1: Monitor Health Status to Identify Community Health Problems		
<b>1.1</b>	<b>Model Standard: Population-Based Community Health Assessment (CHA)</b> <i>At what level does the local public health system:</i>	
1.1.1	Conduct regular community health assessments?	75
1.1.2	Continuously update the community health assessment with current information?	75
1.1.3	Promote the use of the community health assessment among community members and partners?	50
<b>1.2</b>	<b>Model Standard: Current Technology to Manage and Communicate Population Health Data</b> <i>At what level does the local public health system:</i>	
1.2.1	Use the best available technology and methods to display data on the public's health?	75
1.2.2	Analyze health data, including geographic information, to see where health problems exist?	75
1.2.3	Use computer software to create charts, graphs, and maps to display complex public health data (trends over time, sub-population analyses, etc.)?	75
<b>1.3</b>	<b>Model Standard: Maintenance of Population Health Registries</b> <i>At what level does the local public health system:</i>	
1.3.1	Collect data on specific health concerns to provide the data to population health registries in a timely manner, consistent with current standards?	100
1.3.2	Use information from population health registries in community health assessments or other analyses?	100

ESSENTIAL SERVICE 2: Diagnose and Investigate Health Problems and Health Hazards		
<b>2.1</b>	<b>Model Standard: Identification and Surveillance of Health Threats</b> <i>At what level does the local public health system:</i>	
2.1.1	Participate in a comprehensive surveillance system with national, state and local partners to identify, monitor, share information, and understand emerging health problems and threats?	100
2.1.2	Provide and collect timely and complete information on reportable diseases and potential disasters, emergencies and emerging threats (natural and manmade)?	100
2.1.3	Assure that the best available resources are used to support surveillance systems and activities, including information technology, communication systems, and professional expertise?	100

<b>2.2</b>	<b>Model Standard: Investigation and Response to Public Health Threats and Emergencies</b> <i>At what level does the local public health system:</i>	
2.2.1	Maintain written instructions on how to handle communicable disease outbreaks and toxic exposure incidents, including details about case finding, contact tracing, and source identification and containment?	100
2.2.2	Develop written rules to follow in the immediate investigation of public health threats and emergencies, including natural and intentional disasters?	100
2.2.3	Designate a jurisdictional Emergency Response Coordinator?	100
2.2.4	Prepare to rapidly respond to public health emergencies according to emergency operations coordination guidelines?	100
2.2.5	Identify personnel with the technical expertise to rapidly respond to possible biological, chemical, or and nuclear public health emergencies?	100
2.2.6	Evaluate incidents for effectiveness and opportunities for improvement?	75
<b>2.3</b>	<b>Model Standard: Laboratory Support for Investigation of Health Threats</b> <i>At what level does the local public health system:</i>	
2.3.1	Have ready access to laboratories that can meet routine public health needs for finding out what health problems are occurring?	100
2.3.2	Maintain constant (24/7) access to laboratories that can meet public health needs during emergencies, threats, and other hazards?	100
2.3.3	Use only licensed or credentialed laboratories?	100
2.3.4	Maintain a written list of rules related to laboratories, for handling samples (collecting, labeling, storing, transporting, and delivering), for determining who is in charge of the samples at what point, and for reporting the results?	100
<b>ESSENTIAL SERVICE 3: Inform, Educate, and Empower People about Health Issues</b>		
<b>3.1</b>	<b>Model Standard: Health Education and Promotion</b> <i>At what level does the local public health system</i>	
3.1.1	Provide policymakers, stakeholders, and the public with ongoing analyses of community health status and related recommendations for health promotion policies?	
3.1.2	Coordinate health promotion and health education activities to reach individual, interpersonal, community, and societal levels?	50
3.1.3	Engage the community throughout the process of setting priorities, developing plans and implementing health education and health promotion activities?	50
<b>3.2</b>	<b>Model Standard: Health Communication</b> <i>At what level does the local public health system:</i>	
		50

3.2.1	Develop health communication plans for relating to media and the public and for sharing information among LPHS organizations?	25
3.2.2	Use relationships with different media providers (e.g. print, radio, television, and the internet) to share health information, matching the message with the target audience?	50
3.2.3	Identify and train spokespersons on public health issues?	25
<b>3.3</b>	<b>Model Standard: Risk Communication</b> <i>At what level does the local public health system:</i>	
3.3.1	Develop an emergency communications plan for each stage of an emergency to allow for the effective dissemination of information?	100
3.3.2	Make sure resources are available for a rapid emergency communication response?	100
3.3.3	Provide risk communication training for employees and volunteers?	50

<b>ESSENTIAL SERVICE 4: Mobilize Community Partnerships to Identify and Solve Health Problems</b>		
<b>4.1</b>	<b>Model Standard: Constituency Development</b> <i>At what level does the local public health system:</i>	
4.1.1	Maintain a complete and current directory of community organizations?	25
4.1.2	Follow an established process for identifying key constituents related to overall public health interests and particular health concerns?	50
4.1.3	Encourage constituents to participate in activities to improve community health?	50
4.1.4	Create forums for communication of public health issues?	50
<b>4.2</b>	<b>Model Standard: Community Partnerships</b> <i>At what level does the local public health system:</i>	
4.2.1	Establish community partnerships and strategic alliances to provide a comprehensive approach to improving health in the community?	50
4.2.2	Establish a broad-based community health improvement committee?	75
4.2.3	Assess how well community partnerships and strategic alliances are working to improve community health?	25

<b>ESSENTIAL SERVICE 5: Develop Policies and Plans that Support Individual and Community Health Efforts</b>		
<b>5.1</b>	<b>Model Standard: Governmental Presence at the Local Level</b> <i>At what level does the local public health system:</i>	
5.1.1	Support the work of a local health department dedicated to the public health to make sure the essential public health services are provided?	75
5.1.2	See that the local health department is accredited through the national voluntary accreditation program?	75
5.1.3	Assure that the local health department has enough resources to do its part in providing essential public health services?	50
<b>5.2</b>	<b>Model Standard: Public Health Policy Development</b> <i>At what level does the local public health system:</i>	
5.2.1	Contribute to public health policies by engaging in activities that inform the policy development process?	75
5.2.2	Alert policymakers and the community of the possible public health impacts (both intended and unintended) from current and/or proposed policies?	50
5.2.3	Review existing policies at least every three to five years?	50
<b>5.3</b>	<b>Model Standard: Community Health Improvement Process and Strategic Planning</b> <i>At what level does the local public health system:</i>	
5.3.1	Establish a community health improvement process, with broad-based diverse participation, that uses information from both the community health assessment and the perceptions of community members?	75
5.3.2	Develop strategies to achieve community health improvement objectives, including a description of organizations accountable for specific steps?	50
5.3.3	Connect organizational strategic plans with the Community Health Improvement Plan?	50
<b>5.4</b>	<b>Model Standard: Plan for Public Health Emergencies</b> <i>At what level does the local public health system:</i>	
5.4.1	Support a workgroup to develop and maintain preparedness and response plans?	100
5.4.2	Develop a plan that defines when it would be used, who would do what tasks, what standard operating procedures would be put in place, and what alert and evacuation protocols would be followed?	100
5.4.3	Test the plan through regular drills and revise the plan as needed, at least every two years?	100

<b>ESSENTIAL SERVICE 6: Enforce Laws and Regulations that Protect Health and Ensure Safety</b>		
<b>6.1</b>	<b>Model Standard: Review and Evaluation of Laws, Regulations, and Ordinances</b> <i>At what level does the local public health system:</i>	
6.1.1	Identify public health issues that can be addressed through laws, regulations, or ordinances?	100
6.1.2	Stay up-to-date with current laws, regulations, and ordinances that prevent, promote, or protect public health on the federal, state, and local levels?	100
6.1.3	Review existing public health laws, regulations, and ordinances at least once every five years?	100
6.1.4	Have access to legal counsel for technical assistance when reviewing laws, regulations, or ordinances?	100
<b>6.2</b>	<b>Model Standard: Involvement in the Improvement of Laws, Regulations, and Ordinances</b> <i>At what level does the local public health system:</i>	
6.2.1	Identify local public health issues that are inadequately addressed in existing laws, regulations, and ordinances?	75
6.2.2	Participate in changing existing laws, regulations, and ordinances, and/or creating new laws, regulations, and ordinances to protect and promote the public health?	75
6.2.3	Provide technical assistance in drafting the language for proposed changes or new laws, regulations, and ordinances?	75
<b>6.3</b>	<b>Model Standard: Enforcement of Laws, Regulations, and Ordinances</b> <i>At what level does the local public health system:</i>	
6.3.1	Identify organizations that have the authority to enforce public health laws, regulations, and ordinances?	100
6.3.2	Assure that a local health department (or other governmental public health entity) has the authority to act in public health emergencies?	100
6.3.3	Assure that all enforcement activities related to public health codes are done within the law?	100
6.3.4	Educate individuals and organizations about relevant laws, regulations, and ordinances?	75
6.3.5	Evaluate how well local organizations comply with public health laws?	100

**ESSENTIAL SERVICE 7: Link People to Needed Personal Health Services and Assure the Provision of Health Care when Otherwise Unavailable**

<b>7.1</b>	<b>Model Standard: Identification of Personal Health Service Needs of Populations</b> <i>At what level does the local public health system:</i>	
7.1.1	Identify groups of people in the community who have trouble accessing or connecting to personal health services?	75
7.1.2	Identify all personal health service needs and unmet needs throughout the community?	50
7.1.3	Defines partner roles and responsibilities to respond to the unmet needs of the community?	25
7.1.4	Understand the reasons that people do not get the care they need?	75
<b>7.2</b>	<b>Model Standard: Assuring the Linkage of People to Personal Health Services</b> <i>At what level does the local public health system:</i>	
7.2.1	Connect (or link) people to organizations that can provide the personal health services they may need?	50
7.2.2	Help people access personal health services, in a way that takes into account the unique needs of different populations?	25
7.2.3	Help people sign up for public benefits that are available to them (e.g., Medicaid or medical and prescription assistance programs)?	25
7.2.4	Coordinate the delivery of personal health and social services so that everyone has access to the care they need?	25

**ESSENTIAL SERVICE 8: Assure a Competent Public and Personal Health Care Workforce**

<b>8.1</b>	<b>Model Standard: Workforce Assessment, Planning, and Development</b> <i>At what level does the local public health system:</i>	
8.1.1	Set up a process and a schedule to track the numbers and types of LPHS jobs and the knowledge, skills, and abilities that they require whether those jobs are in the public or private sector?	25
8.1.2	Review the information from the workforce assessment and use it to find and address gaps in the local public health workforce?	25
8.1.3	Provide information from the workforce assessment to other community organizations and groups, including governing bodies and public and private agencies, for use in their organizational planning?	50
<b>8.2</b>	<b>Model Standard: Public Health Workforce Standards</b> <i>At what level does the local public health system:</i>	
8.2.1	Make sure that all members of the public health workforce have the required certificates, licenses, and education needed to fulfill their job duties and meet the law?	75
8.2.2	Develop and maintain job standards and position descriptions based in the core knowledge, skills, and abilities needed to provide the essential public health services?	75

8.2.3	Base the hiring and performance review of members of the public health workforce in public health competencies?	50
<b>8.3</b>	<b>Model Standard: Life-Long Learning through Continuing Education, Training, and Mentoring</b> <i>At what level does the local public health system:</i>	
8.3.1	Identify education and training needs and encourage the workforce to participate in available education and training?	50
8.3.2	Provide ways for workers to develop core skills related to essential public health services?	50
8.3.3	Develop incentives for workforce training, such as tuition reimbursement, time off for class, and pay increases?	25
8.3.4	Create and support collaborations between organizations within the public health system for training and education?	25
8.3.5	Continually train the public health workforce to deliver services in a cultural competent manner and understand social determinants of health?	50
<b>8.4</b>	<b>Model Standard: Public Health Leadership Development</b> <i>At what level does the local public health system:</i>	
8.4.1	Provide access to formal and informal leadership development opportunities for employees at all organizational levels?	25
8.4.2	Create a shared vision of community health and the public health system, welcoming all leaders and community members to work together?	50
8.4.3	Ensure that organizations and individuals have opportunities to provide leadership in areas where they have knowledge, skills, or access to resources?	50
<b>ESSENTIAL SERVICE 9: Evaluate Effectiveness, Accessibility, and Quality of Personal and Population-Based Health Services</b>		
<b>9.1</b>	<b>Model Standard: Evaluation of Population-Based Health Services</b> <i>At what level does the local public health system:</i>	
9.1.1	Evaluate how well population-based health services are working, including whether the goals that were set for programs were achieved?	50
9.1.2	Assess whether community members, including those with a higher risk of having a health problem, are satisfied with the approaches to preventing disease, illness, and injury?	25
9.1.3	Identify gaps in the provision of population-based health services?	50
9.1.4	Use evaluation findings to improve plans and services?	50
<b>9.2</b>	<b>Model Standard: Evaluation of Personal Health Services</b> <i>At what level does the local public health system:</i>	

9.2.1	Evaluate the accessibility, quality, and effectiveness of personal health services?	50
9.2.2	Compare the quality of personal health services to established guidelines?	75
9.2.3	Measure satisfaction with personal health services?	50
9.2.4	Use technology, like the internet or electronic health records, to improve quality of care?	75
9.2.5	Use evaluation findings to improve services and program delivery?	50
<b>9.3</b>	<b>Model Standard: Evaluation of the Local Public Health System</b> <i>At what level does the local public health system:</i>	
9.3.1	Identify all public, private, and voluntary organizations that provide essential public health services?	75
9.3.2	Evaluate how well LPHS activities meet the needs of the community at least every five years, using guidelines that describe a model LPHS and involving all entities contributing to essential public health services?	75
9.3.3	Assess how well the organizations in the LPHS are communicating, connecting, and coordinating services?	25
9.3.4	Use results from the evaluation process to improve the LPHS?	50
<b>ESSENTIAL SERVICE 10: Research for New Insights and Innovative Solutions to Health Problems</b>		
<b>10.1</b>	<b>Model Standard: Fostering Innovation</b> <i>At what level does the local public health system:</i>	
10.1.1	Provide staff with the time and resources to pilot test or conduct studies to test new solutions to public health problems and see how well they actually work?	50
10.1.2	Suggest ideas about what currently needs to be studied in public health to organizations that do research?	50
10.1.3	Keep up with information from other agencies and organizations at the local, state, and national levels about current best practices in public health?	75
10.1.4	Encourage community participation in research, including deciding what will be studied, conducting research, and in sharing results?	25
<b>10.2</b>	<b>Model Standard: Linkage with Institutions of Higher Learning and/or Research</b> <i>At what level does the local public health system:</i>	
10.2.1	Develop relationships with colleges, universities, or other research organizations, with a free flow of information, to create formal and informal arrangements to work together?	50
10.2.2	Partner with colleges, universities, or other research organizations to do public health research, including community-based participatory research?	50

10.2.3	Encourage colleges, universities, and other research organizations to work together with LPHS organizations to develop projects, including field training and continuing education?	50
<b>10.3</b>	<b>Model Standard: Capacity to Initiate or Participate in Research</b> <i>At what level does the local public health system:</i>	
10.3.1	Collaborate with researchers who offer the knowledge and skills to design and conduct health-related studies?	50
10.3.2	Support research with the necessary infrastructure and resources, including facilities, equipment, databases, information technology, funding, and other resources?	50
10.3.3	Share findings with public health colleagues and the community broadly, through journals, websites, community meetings, etc.?	50
10.3.4	Evaluate public health systems research efforts throughout all stages of work from planning to impact on local public health practice?	25

## Additional Resources

### General

Association of State and Territorial Health Officers (ASTHO)  
<http://www.astho.org/>

CDC/Office of State, Tribal, Local, and Territorial Support (OSTLTS)  
<http://www.cdc.gov/ostlts/programs/index.html>

Guide to Clinical Preventive Services  
<http://www.ahrq.gov/clinic/pocketgd.htm>

Guide to Community Preventive Services  
[www.thecommunityguide.org](http://www.thecommunityguide.org)

National Association of City and County Health Officers (NACCHO)  
<http://www.naccho.org/topics/infrastructure/>

National Association of Local Boards of Health (NALBOH)  
<http://www.nalboh.org>

Being an Effective Local Board of Health Member: Your Role in the Local Public Health System  
<http://www.nalboh.org/pdffiles/LBOH%20Guide%20-%20Booklet%20Format%202008.pdf>

Public Health 101 Curriculum for governing entities  
[http://www.nalboh.org/pdffiles/Bd%20Gov%20pdfs/NALBOH\\_Public\\_Health101Curriculum.pdf](http://www.nalboh.org/pdffiles/Bd%20Gov%20pdfs/NALBOH_Public_Health101Curriculum.pdf)

## Accreditation

ASTHO's Accreditation and Performance Improvement resources  
<http://astho.org/Programs/Accreditation-and-Performance/>

NACCHO Accreditation Preparation and Quality Improvement  
<http://www.naccho.org/topics/infrastructure/accreditation/index.cfm>

Public Health Accreditation Board  
[www.phaboard.org](http://www.phaboard.org)

## Health Assessment and Planning (CHIP/ SHIP)

Healthy People 2010 Toolkit:  
Communicating Health Goals and Objectives  
<http://www.healthypeople.gov/2010/state/toolkit/12Marketing2002.pdf>

Setting Health Priorities and Establishing Health Objectives  
<http://www.healthypeople.gov/2010/state/toolkit/09Priorities2002.pdf>

Healthy People 2020:  
[www.healthypeople.gov](http://www.healthypeople.gov)  
MAP-IT: A Guide To Using Healthy People 2020 in Your Community  
<http://www.healthypeople.gov/2020/implementing/default.aspx>

Mobilizing for Action through Planning and Partnership: <http://www.naccho.org/topics/infrastructure/mapp/>  
MAPP Clearinghouse <http://www.naccho.org/topics/infrastructure/mapp/framework/clearinghouse/>  
MAPP Framework  
<http://www.naccho.org/topics/infrastructure/mapp/framework/index.cfm>

National Public Health Performance Standards Program  
<http://www.cdc.gov/nphpsp/index.html>

## Performance Management /Quality Improvement

American Society for Quality; Evaluation and Decision Making Tools: Multi-voting <http://asq.org/learn-about-quality/decision-making-tools/overview/overview.html>

Improving Health in the Community: A Role for Performance Monitoring  
<http://www.nap.edu/catalog/5298.html>

National Network of Public Health Institutes Public Health Performance Improvement Toolkit  
<http://nnphi.org/tools/public-health-performance-improvement-toolkit-2>

Public Health Foundation - Performance Management and Quality Improvement  
<http://www.phf.org/focusareas/Pages/default.aspx>

Turning Point  
<http://www.turningpointprogram.org/toolkit/content/silostosystems.htm>

US Department of Health and Human Services Public Health System, Finance, and Quality Program  
<http://www.hhs.gov/ash/initiatives/quality/finance/forum.html>

## **Evaluation**

CDC Framework for Program Evaluation in Public Health

<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr4811a1.htm>

Guide to Developing an Outcome Logic Model and Measurement Plan (United Way)

[http://www.yourunitedway.org/media/Guide\\_for\\_Logic\\_Models\\_and\\_Measurements.pdf](http://www.yourunitedway.org/media/Guide_for_Logic_Models_and_Measurements.pdf)

National Resource for Evidence Based Programs and Practices

[www.nrepp.samhsa.gov](http://www.nrepp.samhsa.gov)

W.K. Kellogg Foundation Evaluation Handbook

<http://www.wkkf.org/knowledge-center/resources/2010/W-K-Kellogg-Foundation-Evaluation-Handbook.aspx>

W.K. Kellogg Foundation Logic Model Development Guide

<http://www.wkkf.org/knowledge-center/resources/2006/02/WK-Kellogg-Foundation-Logic-Model-Development-Guide.aspx>

## INPUT FROM THE COMMUNITY (Community Themes and Strengths)

Input from the community included systematic review, interviews with community leaders and representatives, community listening sessions, a community survey, and a community health summit.

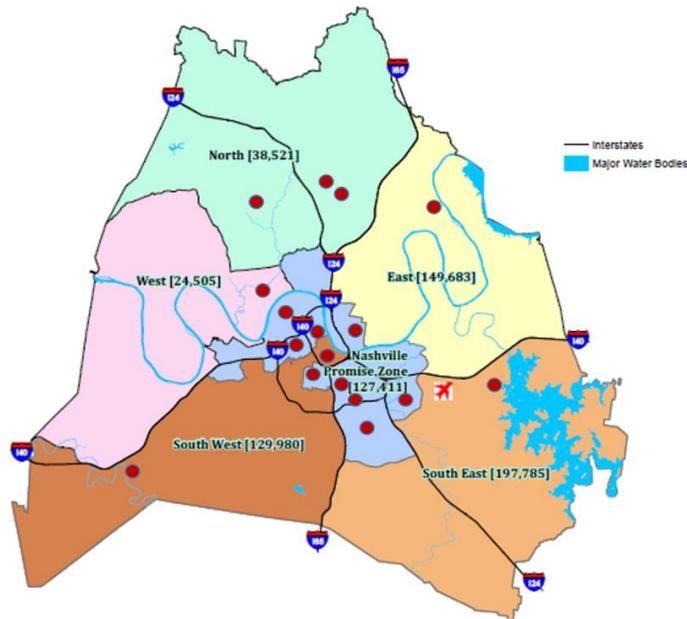
### **Systematic Review**

This systematic review is a summary of health and health-related studies that provide information, data, and common themes presented in various reports published in Davidson County, TN. The purpose of the review is to examine existing data relevant to community health and identify strengths, assets, and areas of improvement regarding the health and healthcare in the community.

The reports that were assessed for Davidson County included:

- Nashville Public Library Responses to Reading Workshops with Parents and “Be Well” Qualitative Survey Results
- Nashville Downtown Partnership’s Residential Survey Results,
- Mayor’s Office Housing Report,
- Northwest YMCA’s Northwest Asset Inventory Report,
- Juvenile Court and Office of Neighborhoods’ Nashville Youth Violence Summit Report to Mayor Megan Barry,
- Metro Transit Authority’s “nMotion” Transit Plan,
- Gideon’s Army Driving While Black: A Report on Racial Profiling in Metro Nashville Police Department Traffic Stops,
- Metro Parks & Recreation Department’s Plan to Play,
- Parks Master Plan,
- Siloam Health Center’s South Nashville Community Health Resources,
- Nashville Metro Planning Organization,
- Nashville Civic Design Center,
- Conexion Americas’ Envision Nolensville Pole: Community Creativity, and Imagination in Placemaking,
- Brookings Institute’s Work and Opportunity Before and After Incarceration,
- Nashville Downtown Partnership’s 2017 Nashville Downtown Employee Survey and Residential Survey,
- MDHA’s Cayce Resident’s Survey,
- Metro Department of Public Work’s WalknBike Strategic Plan for Sidewalks & Bikeways,
- Metro Planning Department’s Nashville Next,
- Siloam Health’s Bhutanese Focus Groups and Patient Advisory Meeting Minutes, and
- YWCA of Nashville/Davidson County’s Report.

Below is a graphic to show the areas of Davidson County, represented by the ‘red dots’ from where the reports were written or the area the reports intended to address:



This review uses “health equity buckets,” as defined by NACCHO’s MAPP Handbook, to ensure that the populations and communities at higher risk for adverse health outcomes are included in this review process. Some of the major health equity buckets that were considered in the various reports include: economic security and financial resources, livelihood security and employment opportunity, school readiness and educational attainment, environmental quality, adequate, affordable and safe housing, and community safety. Additionally, there was a focus on social networks, sense of community, diversity and inclusion and civic involvement, especially in the immigrant and refugee population communities.

There was a focus on the following communities: Bellevue, Bordeaux, Bellshire, Bells Bend, East Nashville, East Germantown Edgehill, Edmonson Pike, Goodlettsville, Green Hills, Hadley Park, Madison, North Nashville, Pruitt, Sylvan Park, Watkins Park, Downtown Nashville, Whites Creek, Wedgewood, Hermitage Ridge, and Scottsboro. Additionally, these populations were specifically mentioned in many of the reports: Spanish and Arabic speakers, immigrant and refugee populations, low-income, and minority populations.

### Major Themes

One of the biggest themes gathered from these reports focuses on the growth of Nashville and how that is impacting the cost of living, education, job availability, workforce development, land development, and infrastructure. There is currently a housing demand in Davidson County, which has created a cost of living problem for many Davidson County residents, forcing many people who work in Davidson County to live in a neighboring county or in a different neighborhood than where they work. This affects transit and transportation. There is a big need for more walkways and bike paths connecting neighboring communities as well as public transportation that is easily accessible and seamless. To continue to attract jobs and more residents, Davidson County must be able to care for its current residents by creating an affordable and

livable community.

Another major theme addressed was the large immigrant and refugee population that lives in Davidson County, particularly in the Nolensville Pike area. There is a big need for more cultural and ethnic understanding between residents. Understanding cultural and ethnic norms of other neighborhoods and populations allows for a better sense of community and allows people unfamiliar with a new city and country to feel at home. It also helps to combat things like language barriers, which many immigrant families face, which affects their daily lives in many ways. A strong community fosters prosperity and growth and there must be more knowledge and awareness of these communities to ensure all residents have an equal opportunity to health and health care.

The last major theme addressed from these reports was social determinants of health, which includes poverty, education (or lack thereof), access to parks and rec/outdoor activities, health disparities, and violent crime. The Centers for Disease Control and Prevention (CDC) defines social determinants of health as conditions in the places where people live, learn, work, and play affect a wide range of health risks and outcomes. The systematic review found that minorities, low-income residents, and immigrants are most affected by a lack of societal resources in their communities. The communities most affected by this are the Nashville neighborhoods (East, West, South, and North Nashville).

## Interviews with Community Leaders and Representatives

Community representatives and leaders, who represented a broad interest of the community, were identified by Saint Thomas Health entities, Vanderbilt University Medical Center, the Metro Public Health Department, and Community Input Committee. The interviewee constituency was diverse and included those with professional experience and/or the ability to represent populations which are medically underserved, low-income, minority and/or with chronic disease needs. Community representatives and leaders also included those with special knowledge of and/or expertise in public health. Interviewees represented areas of healthcare services, law enforcement, education, non-profit agencies, faith communities, government representatives, safety net service providers, economic and workforce development, mental/behavioral health services, housing and homelessness and other interest groups working with vulnerable populations.

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### Methodology

The interviews were conducted by representatives from Saint Thomas Health and Vanderbilt University Medical Center using a standardized interview instrument (**Appendix B**). Questions focused on community assets, issues/concerns, obstacles to addressing concerns, and priorities. The instrument consisted of five (5) open-ended questions and allowed for additional comments at the end. Twenty-three (23) interviews were conducted. Analysis was performed by the partnering organizations. The top themes for each question follow:

### 1. What do you think are your community's strongest assets?

- **Community** - the communities within Davidson County have high resilience and diversity. Individual neighborhoods have high community involvement.
- **Healthcare** - in Davidson County there is a surplus of access points with high quality. There is also a strong safety net in place.
- **Resources/Collaborative Work** - there are strong resources throughout the county and multiple areas of collaborative work around key issues such as ACEs, homelessness, and mental health.

Other Identified Assets: built environment, mental health options

### 2. Based on your experience, what are the top three issues that you are most concerned about in your community (Probe: think broadly, beyond health)?

- **Vulnerable Populations** - in Davidson County these include refugees, the homeless, the poor, and the LGBTQ community.
- **Growth** - challenges related to growth include gentrification, transportation, housing, jobs, and crime.
- **Care Coordination** - the issues with care coordination are related to policy, gaps in collaboration, lack of knowledge related to available resource, and access to care.

Other Identified Issues of Concern: mental health/substance abuse (including increased need of access for children), jobs/unemployment, housing/homelessness

### 3. What would you say are the top three issues specific to health or health care that you are most concerned about in your community?

- **Insurance/Affordability** - identified issues include lack of Medicaid expansion, increases in uninsured and underinsured, overall affordability of both insurance and healthcare services.
- **Equity** - specific populations identified with equity issues include refugees, the poor, and race/gender disparities.
- **Lifestyle/Behaviors** - in Davidson County, chronic disease, nutrition, physical fitness, mental health, and substance abuse have a negative impact on the health on community.

Other Identified Health/Healthcare Concerns: transportation, built environment, shrinking resources/access to resources, consumer trust, education reform

### 4. What do you think are the obstacles or challenges to addressing these issues?

- **Financial** - there is a lack of insurance, available government and private dollars, and overall funding.
- **Community Disconnect** - there is a disconnect in Davidson County related to underlying politics, poor communication, lack of collaboration, and lack of trust.
- **Health Literacy** - this issue is related to gaps in education, awareness, cultural/language barriers, access issues, and lack of navigation.

Other Identified Obstacles/Challenges: politics/regulations allocation of resources

## 5. If you had a magic wand, what top initiatives would you implement in your community in the next three years?

- **Collaboration/Coordination** - including centralizing resources, communication of available resources, and a navigation tool available to all.
- **Access to Healthcare** - with particular attention to insurance access and access to mental health resources/services.
- **Social Determinants** - including housing/transportation, vulnerable populations, and food access.

Other Ideas: childcare

Crosscutting themes in interviews included:

- **Refugees/Bilingual Challenges** - there needs to be more consistency, options, acceptance, and integration for these populations.
- **Regional Issues** - there needs to be increased transportation, housing, and healthcare options connected throughout the region.
- **Vulnerable Populations** - there are gaps in healthcare and resources in certain population and a lack of personalized attention. The populations that need the most have the least.

## Community Survey

### Methodology

To gather more widespread input from the community, an electronic intercept survey was disseminated to various organizations in the community. The online community survey (English and Spanish), **Appendix D**, consisted of four open-ended questions as well as close-ended questions to gather demographic information from respondents. The questions utilized on the survey were adapted from the Kansas City Health Department and the MAPP process with input from the Community Input Sub-Committee. The open-ended questions focused on community assets, issues/concerns, and future goals for the community.

Following development of the questions, the survey was translated into Spanish, converted into an electronic survey using REDCap, and piloted for accuracy and timing. The survey was distributed to several networks of the health department as well as health system and community partners. Finally, the qualitative data was analyzed by a team of four reviewers to determine themes and the demographic data was analyzed using Excel.

## Survey Demographics

The survey was distributed by the health system, community, and public health networks. 277 responses were fielded from the community survey with all respondents living in Davidson County. The graph in **Figure 62** shows the geographical breakdown:

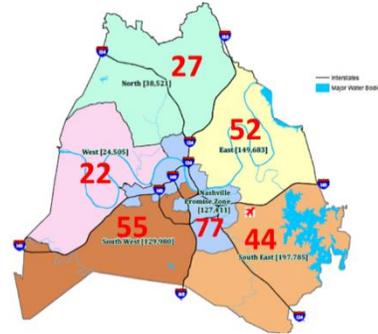


Figure 62 Geographic display of survey respondents

- 79% of respondents identified female, and 21% identified male.
- 48% of respondents were between the ages of 40-64, while another 36% were aged 26-39.
- 81% of respondents were white and 15% of respondents were African-American.
- Approximately 24 of total responses were from the survey distributed in Spanish; an additional 4% of the respondents from the English survey identified as Latino/a, Hispanic or Spanish.

## Questions and Summaries of Responses

### 1: What do you love about your neighborhood? (Please tell us about your neighborhood and communities' assets and strengths.)

- **Location, access and proximity to services** was the largest re-occurring theme among group members for this question.
  - Many respondents noted the convenience of their neighborhoods to local amenities, parks, roads and highways.
- **Sense of community and character** was the second largest re-occurring theme among group members for this question.
  - Respondents often mentioned specific physical characteristics of their neighborhood that made it unique, as well as the value of knowing and trusting their neighbors. Diversity in the neighborhood was an additional sub-theme.
- **Green and open spaces** was the third largest re-occurring theme among the group members for this question.
  - Being located near a park, greenway, sidewalk, or other communal open space was important to respondents.

### 2: What keeps you up at night? (Please tell us about your top concerns in the community.)

- **Crime, violence and safety concerns** was the largest re-occurring theme among group members.
  - 250 respondents answered this question, and this theme was coded 125+ times by all three

analysts; this means more than half of respondents listed this as a top concern.

- **Affordability, displacement, and related social issues** was the second largest re-occurring theme among group members.
  - Gentrification and being “priced out” of neighborhoods was a concern among many. While housing affordability was predominantly mentioned, other concerns about affordability were mentioned as well - like child care.

**Traffic problems and lack of public transportation** was the third largest re-occurring theme among group members.

### 3: What do you hope for the next generation? \* (What would you like to see your community focus on in the future?)

- **Caring, Connectedness and Civility** was the largest re-occurring theme among group members for this question.
  - Many respondents mentioned working together with a spirit of acceptance and togetherness in order to solve larger social ills. Community engagement and equity among neighbors were notable sub-themes here.
- **Alternative transit, traffic concerns and walkability** was the second largest re-occurring theme among group members for this question.
  - Infrastructure concerns in regard to transportation came up again in this question. Many respondents mentioned that this issue is something that we haven’t tackled meaningfully yet as a community.
- **Green Space and Parks** was the third largest re-occurring theme among group members for this question.
  - There were several mentions of maintaining green space and not over-developing available open space.

### 4: Was there anything else you wanted to share?

- **Issues with managed city growth and concerns about preserving community character** were the largest re-occurring theme among group members.
  - Several respondents acknowledged Nashville’s growth and continuing sprawl but worry about who is benefitting and about the city’s character/charm.
- **Concerns about public transit** were the second largest re-occurring theme among group members.
  - Respondents again mentioned better connectedness through buses, bikeways, greenways, and sidewalks as an alternate to getting in the car.
- **Advancing health equity and being more inclusive as a city** was the third largest re-occurring theme among group members.
  - Race and concerns about the effects of racism on health was brought up by several community members.

### Cross-Cutting Themes and Final Thoughts:

All three analysts coded responses somewhat differently but had overlapping larger themes that rose to the top, which were mentioned above. The analysts wanted to also include some cross-cutting themes that didn't make the top 3 but are of note due to the frequency they appeared across *all* questions.

- Concerns for the aging population; many respondents feel that the aging population is overlooked in Davidson County and are more at-risk to some community issues due to fixed incomes.
- Quality public education; many respondents mentioned young families facing difficult decisions when zoned for a school that is performing poorly. Many mentioned that public schools need more of our community's attention.
- "For all" - issues concerning equity; many community ills mentioned often came with an undertone that some are achieving highly in Davidson County at the expense of others.

### Community Listening Sessions

In Davidson County, six listening sessions were conducted to identify the first-hand opinions of community members. The goal was to understand individuals' viewpoints on issues facing their community, what health and healthcare barriers exist, and what resources are available or absent.

Listening sessions were moderated by the Needs Assessment partners and held at six locations around Davidson County including Hadley Park, Hartman Park, Elizabeth Park Senior Center, Building Lives Foundation, Outreach Base, and Salahadeen Center. Each session had twelve to fifteen individuals in attendance. The participants completed a demographic survey in order to provide insight into the composition of each group, but all responses during the conversation were kept anonymous. The main topics explored in these sessions included quality of life, community assets, obstacles or challenges, and priorities for the future. A team of four reviewers then conducted a thematic analysis of the responses. The listening session guide can be found in **Appendix E**.

The majority of participants were female, 27% were Hispanic or Latino, and 41% were Black or African American. Nearly half of participants spoke a language other than English in the home, and most individuals completed some college, have a college degree, or have a graduate degree. 41% of participants were uninsured or enrolled in Medicaid or Medicare.

Participants were first asked how they would define "quality of life" to which the main responses were access to resources, self-sufficiency, access to affordable health care, having a live-able wage and financial stability, and presence of strong social networks. Self-sufficiency referred to the ability to meet basic needs and included indicators such as safe living conditions, food security, reliable transportation, affordable and stable

housing, and mobility for seniors.

Community members were then asked, “What are the top three things you believe would improve quality of life in your community?” The top responses were employment opportunities including more quality jobs with higher wages, improved access to resources, affordable housing, reliable transportation access, education reform, and neighborhood safety with increased police presence. Access to resources included both increased knowledge of resource availability and resources that cater to special populations such as seniors. When asked what changes people noticed in quality of life for Davidson County, participants noted population growth with implications of gentrification and widening disparities, local government being outdated and not representative of the population being served, and children not receiving proper public education. Many of these themes were raised throughout all three quality of life questions. However, at the Salahadeen Center, participants also mentioned the positive changes in quality of life such as improved housing options, more children in college, more quality jobs, and increased diversity in schools and hospitals. Participants were then asked their community’s strongest assets, to which the primary responses were a strong community dynamic, resource availability including the community centers and the faith community, built environment with parks and universities, and the cultural diversity. The main obstacles and challenges in the community were noted to be health inequity, healthcare access, population growth, resource access, and living and working conditions.

The final question raised to participants was, “If you had a magic wand, what top initiatives would you implement in your community?” The top responses were increase healthcare access for all, education, community leadership, housing, training and skill development, accessible resources, and prevention. Many respondents also wanted to see more emphasis on “the Village” and wanted people to “love each other.” In conclusion, the main themes brought to light at the Davidson County listening sessions were focused on training and employment opportunities, housing, safety, resources, community cohesion, education, population growth, and equity.

### [Healthy Nashville Summit and Prioritized Health Needs of Davidson County](#)

Results of the systematic review, community interviews, community listening sessions, public health systems reviews, and secondary data analysis were presented on January 11, 2019 at the West End Community Church for the Healthy Nashville Summit. 159 persons attended, and invitees included all participants in interviews and community listening sessions, as well as community members with expertise in public health or who work with medically under-served, minority, or low-income populations. The purpose of the summit was to solicit input and consider the broad interests of the community in identifying and prioritizing the community’s health needs. In Davidson County, the Summit was facilitated jointly by VUMC, Saint Thomas Health, and the Metro Public Health Department.

After being presented with primary and secondary data on several needs, summit attendees provided input

into prioritizing the most important health needs within the community. Attendees individually selected between one and three health issues and then discussed these needs with their tablemates, guided by a facilitator. The table consolidated the needs into three health need buckets. These buckets were then entered into an electronic voting system. All participants voted on their top three priorities via the voting system called REDCap. The four health needs with the greatest number of votes were selected as the identified health needs.

## CONCLUSION

The prioritized needs for Davidson County are:



### **Description of Prioritized Needs**

#### [Access and Coordination of Resources - Summary](#)

Prioritizing coordination of resources between many different service providers was a necessity to many community members throughout the need's prioritization process. "Access and Coordination of Resources" encapsulated many different types of services and resources throughout the community, not just health or clinically related. Some examples of the types of services that should be coordinated include but are not limited to social services (SNAP), clinic services, housing assistance, and mental health services.

Needs prioritization efforts at the summit revealed what success looks like in three years for this need, as well as the organizations that need to be involved in creating changes. Some of the examples of what success looks like include: have a map or guideline of what organizations there are and what services they provide, mobile application for phones that has healthcare and mental health resources, 10% reduction in housing burden for renters, and government involvement in all aspects that affect health. Some of the organizations that need to be involved are The United Way, Vanderbilt and St Thomas Mobile Unit, 2-1-1, and the Mayor's Office.

#### [Meeting Basic Needs and Social Determinants - Summary](#)

The need to address social determinants and to meet the basic health needs of populations in Davidson County was one of the largest issues revealed through all processes of the assessment. "Meeting Basic Needs and Social Determinants" entails many different things, including access to food, transportation, housing, and education. Failing to meet basic needs, increases the risk of development of chronic diseases and worse health outcomes. Primary and secondary data analysis largely stressed the importance and need to address the lack of access to basic needs across Davidson County.

Prioritization efforts at the summit revealed what success would look like in three years, and organizations that need to be involved in order to successfully address this problem. Success in three years includes decreasing the poverty rate, increasing graduation rates, supporting and funding grassroots organizations

that are making efforts in increasing access to healthy foods and increased affordable housing availability and access. Some of the potential collaborators on these efforts include The Healing Trust, Metro Nashville Government leaders, the Office of Minority Health, and Nashville Electric Service, among many others.

#### [Mental Health and Toxic Stress - Summary](#)

Mental health and toxic stress was cited as a major issue throughout the need's assessment process. Secondary data analysis indicates a high need for mental health services, decreasing negative stigmas of mental health, and education, prevention, and treatment of toxic stress, primarily adverse childhood experiences (ACEs).

Prioritization efforts at the summit revealed the most prominent areas of focus in this category, including increasing access to mental/behavioral health services, addressing adverse childhood experiences in the community, and decreasing violence and increasing safety in communities. Furthermore, ensuring that behavioral health services are cost-efficient and there is an increase in the integration of mental health services in primary healthcare. In the need's prioritization process, when individuals were asked "What does success after 3 years look like?" some of the major trends included, decreasing mental health stigmas, all schools using trauma-informed care, increasing resilience in the children in the community, and diversifying treatment services beyond substances, including all behavioral and mental health issues. Participants stressed the collaboration between many different entities for success to occur in the next three years. Some of the organizations mentioned include ACE Nashville, the State Opioids Task Force, faith communities in Davidson County, and health care organizations.

#### [Access and Affordability of Healthcare - Summary](#)

Access and Affordability of Healthcare was a major issue, highlighted throughout the need's assessment process. This includes insurance coverage, access to specialty providers, and insurance affordability. Prioritization efforts at the summit revealed what success would look like in three years, and organizations that need to be involved to successfully address this problem. Some of the measurable outcomes for success in three years include being at or below the national average for uninsured rates, expanding Medicaid in the state of Tennessee to increase insurance coverage, as well as ensuring that access and affordability is approached from an equity lens to ensure efforts affect vulnerable populations. Some of the potential collaborators on these efforts include hospitals, Medicare/Medicaid, Project Access, TennCare, insurance companies, and Bridges to Care, among many others.

#### [Health Equity - Summary](#)

The need for an equitable approach to addressing proposed health needs emerged as an issue throughout both quantitative and qualitative assessments, and by 2019 Healthy Nashville Summit attendees. The Metro Public Health Department's 2015 Health Equity and Recommendations report define health equity as: "[...] the societal and systematic understanding and appreciation of differences among individuals and populations; where everyone is valued and has the opportunity to achieve optimal health and well-being."

Understanding this definition, and continuing to understand complex social determinants of health, requires a

systems approach when considering future health programming and interventions. This will require expanding our knowledge about what creates health, including examining policy change, finances, evidence-based programs that lead to data-driven action, community resources, and collaborative partners. Additionally, some groups are more susceptible to social disadvantages that lead to health inequities; special attention will need to be paid to:

- Children, youth, or the elderly;
- People with disabilities;
- Ethnic or racial minorities;
- People experiencing homelessness;
- People who speak limited English;
- Low-income people and families;
- Religious and faith communities;
- Women; and
- People who are lesbian, gay, bisexual, or transgender.

The success of the previously stated health needs (access and navigation of resources, mental health and toxic stress, meeting basic needs and social determinants, and access and affordability of health care) will require a health equity lens that places strategic focus on vulnerable populations and deep understanding of the complexity of some health disparities. In doing so, health leaders will need to commit to individual, organizational and community capacity-building activities and actions that will lead to more equitable outcomes.

#### Limitations of CHA

The objective of the CHA was to provide a comprehensive assessment of the health needs of Davidson County. Assessment limitations are acknowledged by the partners and collaborators who conducted this CHA.

*Secondary data limitations:* The assessment took into consideration many aspects affecting health, including the social determinants of health: however, not all health process and outcome measures available through secondary health data were reviewed due to the broad focus of the assessment. In some cases, comparable benchmarking was not available due to timeframe, and there were measurement definition differences between data sources.

*Interview limitations/Listening Sessions:* Every effort was made to include representation from all sectors of the community.

*Online community survey limitations:* By design, the site was created to obtain health input from members of the community who represent underserved, minority and/or vulnerable populations.

The assessment was designed to provide a prioritized list of health needs but not to provide an in-depth

understanding of barriers to health for each identified need nor specific interventions to address the identified health needs.

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# APPENDICES

## A. ACKNOWLEDGMENTS

We would like to acknowledge the contributions of those who supported, advised, and participated in this Community Health Assessment of Davidson County, Tennessee. We greatly appreciate their contributions.

### Planning Core Team

- connectushealth
- Matthew Walker Comprehensive Health Center
- Metro Arts
- Metro Public Health Department
- Metro Social Services
- Saint Thomas Health
- Vanderbilt University Medical Center

### Healthy Nashville Leadership Council

- Nancy Anness
- Dr. Mekeila Cook
- Ted Cornelius
- Xyzeidria D. Ensley
- Joe Flynn
- Elisa Friedman, Vice Chair
- Francisca Guzman
- Dr. John Harkey
- Dr. Garrett Harper
- Erica Mitchell
- Sandra Moore
- Dr. Freida Outlaw, Chair
- Janie Parmley
- Dr. Bill Paul
- Colby Sledge
- Adam Will
- Caroline Young
- Kristen Zak
- **Ex Officio Members**
- Capt. Mike Hagar
- Laura Hansen
- Anita McCaig
- Monique Odom
- Renee Pratt

### Community Health Status Assessment Subcommittee

- Healthy Nashville Leadership Council
- Metro Public Health Department
- Nashville Chamber of Commerce
- Nashville Health
- Vanderbilt University Medical Center
- YWCA Nashville

### **Community Themes and Strengths Assessment Subcommittee**

- Gresham Smith
- Healthy Nashville Leadership Council
- Meharry Medical College
- Metro Arts
- Metro Development and Housing Agency
- Metro Public Health Department
- Nashville Chamber
- Tennessee Department of Health
- UT College of Social Work
- Vanderbilt Ingram Cancer Center
- Vanderbilt University Medical Center

### **Assessment Participants**

- Community Survey Respondents
- Interviewees
- Listening Session Participants
- Public Health System Partners

### **Listening Session Host Sites**

- Building Lives
- Elizabeth Park Community Center
- Hartman Park Community Center
- Nashville Public Library - Hadley Park
- Outreach Base
- Salahadeen Center

### **Student Interns**

- Meharry Medical College MSPH Students
- Vanderbilt University MPH Students

### **Metro Public Health Department**

- Dr. Sanmi Areola, Deputy Director
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- Amanda Ables, Community Health Assessment Coordinator
- Tina Lester, Bureau Director Population Health
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- Dr. Bill Paul, Director of Health 2007-2018
- Justin Gatebuke, Epidemiologist
- Dr. Celia Larson, Director of Program Planning and Innovation
- Brook McKelvey, Epidemiologist
- Abraham Mukolo, Epidemiologist
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**Saint Thomas West Hospital, Saint Thomas Midtown Hospital, Saint Thomas Hospital for Specialty Surgery, and Saint Thomas Health**

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- Lisa Davis, Chief Finance Officer
- Pamela Hess, Vice President Finance
- Elizabeth Malmstrom, Community Benefit Director
- Greg Pope, Chief Mission Integration Officer
- Amber Sims, Chief Strategy Officer
- Fahad Tahir, Chief Executive Officer
- Lindsay Voigt, Community Benefit Manager
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**Vanderbilt University Medical Center**

- Dr. Robert Dittus, Executive Vice President for Public Health and Health Care
- David Posch, Executive Vice President for Population Health
- Jameson Norton, Executive Director, Vanderbilt Behavioral Health
- Rhonda Ashley-Dixon, Director of Outreach and Development, Vanderbilt Behavioral Health
- Jeffrey Palmucci, CEO, Vanderbilt Stallworth Rehabilitation Hospital
- Marilyn Dubree, Executive Chief Nursing Officer
- Dr. Margaret Rush, Chief of Staff and Executive Medical Director, Vanderbilt Children's Hospital
- Elisa Friedman, Assistant Vice President for Community and Population Health
- Chelsei Granderson, Community Health Coordinator
- Sarah Ray, Associate Program Manager

## B. MOBILIZING FOR ACTION THROUGH PLANNING AND PARTNERSHIPS (MAPP) BACKGROUND

Identifying Nashville's public health issues and improving the community's health and quality of life requires the knowledge and experiences of all of those who live and work in Nashville. Nashville is using the Mobilizing for Action through Planning and Partnerships (MAPP) community health assessment process as the framework for convening a large variety of organizations, groups, and individuals that comprise the local public health system in order to create and implement a community health improvement plan. As a community-based and inclusive process, MAPP provides an opportunity to build and maintain relationships with community partners and Nashville residents. Community involvement throughout the process creates community ownership of public health concerns and solutions.

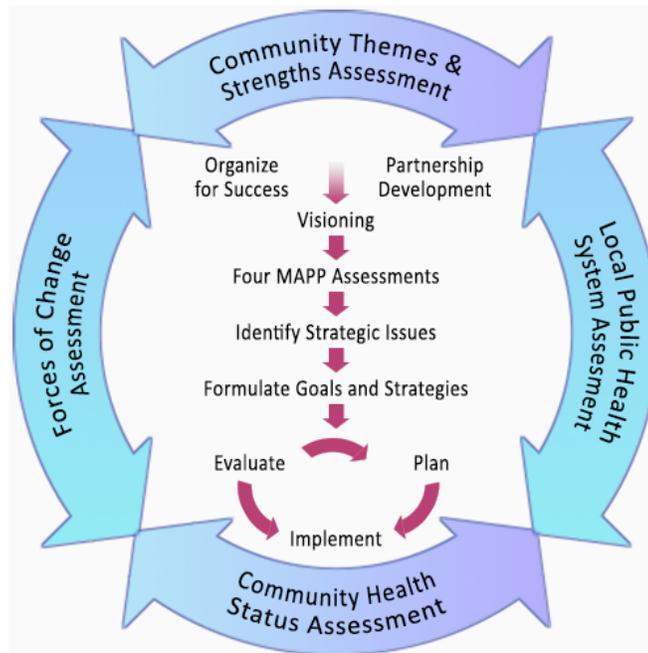


*Fig 62: Nashville MAPP Process Roadmap to Improved Health*

From 1997 through 2001, the National Association of County and City Health Officials (NACCHO), in collaboration with the Centers for Disease Control and Prevention (CDC), developed MAPP. Prior to MAPP's inception, public health practitioners did not have structured guidance on creating and implementing community-based strategic plans. In response, NACCHO and CDC created a process based on substantive input from public health practitioners and public health research and theory. As a result, MAPP is a process that is both theoretically sound and relevant to public health practice. (National Association of County and City Health Officials, 2008).

Nashville has used many public health assessment tools in the past and was one of the first communities to use the MAPP process for community health assessment and planning. Nashville was selected by NACCHO as a MAPP demo site from 2001 until 2003, during which time the Healthy Nashville Leadership Council (HNLC) was created as an overseeing body to help guide the MAPP process and prioritize strategic issues.

The HNLC is a mayoral appointed council, comprised of strategic thinkers and community leaders that are convened by the Metro Public Health Department (MPHD) to serve as the steering committee for the MAPP process. MPHD serves as the lead agency for conducting the MAPP assessments and has established a community core support team, comprised of 11 members, diversely representative of the local public health system, who will serve as leadership for the MAPP assessment teams. See **Appendix C** for the Executive Order establishing the Healthy Nashville Leadership Council.



MAPP utilizes four assessments, which serve as the foundation for achieving improved community health. These four assessments are:

- **Community Themes and Strengths Assessment:** Provides community perceptions of their health and quality of life, as well as their knowledge of community resources and assets.
- **Local Public Health System Assessment:** Measures how well public health system partners collaborate to provide public health services based on a nationally recognized set of performance standards. The Local Public Health System Assessment is completed using the local instrument of the National Public Health Performance Standards Program.
- **Community Health Status Assessment:** Measures the health status using a broad array of health indicators, including quality of life, behavioral risk factors, and other measures that reflect a broad definition of health.
- **Forces of Change Assessment:** Provides an analysis of the positive and negative external forces that impact the promotion and protection of the public's health.

Using the assessment data, strategic issues are identified followed by the development of goals and objectives. These objectives are the community action plan for implementing the strategic issues.

This approach leads to:

- Measurable improvements in the community's health and quality of life;
- Increased visibility of public health within the community;
- Community advocates for public health and the local public health system;
- Ability to anticipate and manage change effectively; and
- Stronger public health infrastructure, partnerships, and leadership.

## C. HEALTHY NASHVILLE LEADERSHIP COUNCIL EXECUTIVE ORDER

**Article I.** Mayor Megan Barry Executive Order Number 027  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
MEGAN BARRY, MAYOR

**Article II.** Subject: Healthy Nashville Leadership Council

I, Megan Barry, Mayor of the Metropolitan Government of Nashville and Davidson County, by virtue of the power and authority vested in me, do hereby find, direct and order the following:

I. The Metropolitan Government desires to improve the health of its citizens by assessing citizen's health status, the current systems, policies, and services available to support health, and potential forces of change affecting citizen health and establishing strategic priorities for community health improvement; and

II. Much of the chronic disease burden is preventable and the underlying contributors to chronic diseases include unhealthy diet, lack of physical activity, and tobacco use; and

III. Community-wide action is necessary to improve health, including action by individuals, families, schools, employers and businesses, community groups, religious communities, and various agencies within government; and

IV. The Healthy Nashville Leadership Council has been successful in drawing community-wide attention to and encouraging ownership of important public health problems and their solutions.

1. Healthy Nashville Leadership Council: There is a Davidson County citizens' council called the Healthy Nashville Leadership Council (hereinafter Council).

2. Council's duties: The Council shall be charged with:

a. Assessing the health status and quality of life of Davidson County residents, assessing health systems that promote and support health, and assessing potential forces of change, and

b. Establishing strategic priorities and mobilizing collaborative and effective community initiatives to achieve improvements in health.

c. Assessing and promoting the consideration of the health impacts of programs and policies across the metropolitan government, [i.e., Health in All Policies]

3. Council members: The Council shall be composed of eighteen (18) members appointed by the Mayor.

a. One of the members shall be a member of the Metropolitan Board of Health; and

b. One of the members shall be the Director of Health or her/his designee.

c. Other appointees to the Council shall include, but not be limited to, representatives of health care organizations, community organizations, and other interested community members.

d. Members of the Council shall be appointed with a conscious intention of reflecting a diverse mixture with respect to race, ethnicity, gender, and age.

4. Terms for Council members:

a. With the exception of the Director of Health, the regular term of a member of the council shall be three (3) years.

b. However, of the initial membership of the Council, five (5) members will serve one (1) year, six (6) members will serve two (2) years, and six (6) members will serve three (3) years so that the terms are staggered as to replace no more than one third (1/3) of the members each year. [Note: The Mayor will

designate the term length for each initial Council member at the time of appointment.]

c. Members of the Council shall continue in office until the expiration of the terms for which they were respectively appointed and until such time as their successors are appointed, unless a member is administratively removed from the Council pursuant to section 10 below.

5. Vacancies: A vacancy shall be filled in the same manner as a regular appointment.

6. Compensation: Members of the Council shall not be compensated for services rendered.

7. Chair: The Mayor shall appoint a chair from among the members.

8. Officers: The Council shall elect other officers as the Council finds necessary and appropriate.

9. Quorum: A quorum for approving decisions by the Council shall consist of a majority of the currently filled positions on the Council.

10. Removal of Members: A member who fails to attend three (3) or more meetings in a calendar year will cease to be a member absent a vote of retention by the Council.

11. Staff: The Metropolitan Public Health Department shall provide staff support for the Council.

ORDERED, EFFECTIVE AND ISSUED:

Megan Barry  
Metropolitan County Mayor

Date: February 24, 2016

## D. COMMUNITY INTERVIEW FACILITATOR GUIDE

### Interview - Davidson

Saint Thomas Health/Davidson County Health Department /Vanderbilt University Medical Center, and  
Partners

2019 Community Health Needs Assessment

Interview Summary Sheet

INTERVIEWER NAME: \_\_\_\_\_

RECORDER NAME: \_\_\_\_\_

CHNA AREA/COUNTY: \_\_\_\_\_ DAVIDSON COUNTY \_\_\_\_\_

DATE: \_\_\_\_\_

INTERVIEWEE NAME: \_\_\_\_\_

ORGANIZATION: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATA ENTRY DATE: \_\_\_\_\_

DATA ENTRY BY: \_\_\_\_\_

Hello, my name is \_\_\_\_\_. I am a representative of Saint Thomas Hospital/Vanderbilt University Medical Center and am working with Vanderbilt University Medical Center, Saint Thomas Health, and the Davidson County Health Department on the 2019 Community Health Needs Assessment. Also, with me is \_\_\_\_\_ from Saint Thomas Health/Vanderbilt University Medical Center.

Thank you for taking your time to meet with us and agreeing to participate in the Community Health Needs Assessment. As part of the assessment we are interviewing Community Leaders and Representatives as a way of understanding and identifying the priority health needs of DAVIDSON County.

We anticipate the interview will take approximately 30 minutes. We have a set of questions we will be asking. Both \_\_\_\_\_ and I will be recording your selections and comments, so that the information may be combined with the responses of the other interview participants.

Please note: As required by the IRS Community Health Needs Assessment (CHNA) guidelines, the CHNA which will be made publicly available and posted on the hospital's website. We will be acknowledging the participation of community leaders and representatives by industry grouping. Your responses will be summarized and aggregated with others and your name will not be linked to specific responses or comments.

Are you ready to begin?

1. Could you tell us a little about yourself and your role here at  (organization name)  ?
2. What do you think are your community's strongest assets?
3. Based on your experience, what are the top three issues that you are most concerned about in your community?

*[Probe: think broadly, beyond health]*

4. What would you say are the top three issues specific to health or health care that you are most concerned about in your community?

*[INTERVIEWER NOTE: Assess previous response]*

5. What do you think are the obstacles or challenges to addressing these issues?
6. If you had a magic wand, what top initiatives would you implement in your community in the next three years?

*[Probe: What resources, policies or supports would you like to see put in place to address your counties' health needs?]*

7. Was there anything you wanted to discuss today that we didn't cover?
8. Do you have any questions for us?

Thank you for your time. We appreciate your participation and willingness to share your and your constituents' concerns.

The complete Community Health Needs Assessment is anticipated to be released in mid-2019 and will be posted on the website for both hospitals and the health department.

Thank you again for your participation.

ADDITIONAL INTERVIEWER NOTES RE: INTERVIEW (OPTIONAL)

## E. LISTENING SESSION FACILITATOR GUIDE

### Introduction

Good Morning/Afternoon/Evening. My name is \_\_\_\_\_ and I'll be your moderator today for this very important discussion on [Community Health Needs]. My role as the moderator is to direct the content and flow of the discussion and to make sure that we cover the main topics.

[If an assistant is present, introduce him/her]

I would like to introduce \_\_\_\_\_ who will be observing and assisting in this discussion.

[If a transcriber is present, introduce him/her]

I would like to introduce \_\_\_\_\_ who will be taking notes during this discussion.

### Objectives and Agenda

Currently - Vanderbilt University Medical Center, Saint Thomas Health, and the Metro Public Health Department are conducting a Community Health Assessment in Davidson County. We are collecting several types of data including the first-hand opinions of community members through the use of listening sessions, like this one. We want to take into account the broad interests, experiences, and viewpoints of this community, which is why each of you has been invited to join this listening session. Today we want to get your understanding of the issues that face your community, what barriers exist - when it comes to health and healthcare, and what resources are either present, or missing.

### Description of process and consent

Your participation in this listening session is voluntary. You are free to withdraw from this group at any time. The questions we ask will focus on your thoughts and feelings about the health needs of yourself and your community. We are interested in all feedback and opinions.

We will be taking notes during this conversation. However, your name and other information that might identify you will not be included in any reports from this session. The responses you share will be combined with other responses so that we can look for common themes in each question area.

We will also ask you to complete a brief background survey so that we can describe the composition of our groups. Please do not include your name on this survey.

The group discussion will last about one hour. Once the group discussion is over, your participation is finished. Please see me to receive your gift card.

The reports describing what we learned from this and other groups will be shared with leadership at both hospitals, with the community and will also be publicly available on the Vanderbilt University Medical Center, Saint Thomas Health, and Metro Public Health Department web sites. It will also be shared with the federal tax entity (i.e., the IRS) that both hospitals are required to report to annually.

If you stay in this group, we will assume you agree with what I have shared. Please do know that you can leave the group or ask me questions at any time.

### Ground Rules

Before we begin I would like to go over a few basic ground rules for our discussion.

There are no right or wrong answers.

You do not have to speak in any particular order.

When you do have something to say, please do so. It is helpful for me to obtain the views of each of you.

You do not have to agree with the views of other people in the group.

Only one person should speak at a time. There may be temptation to jump in when someone is talking but please wait until they have finished.

Does anyone have any questions? Are any ground rules missing?

### **Introductions**

I would like to quickly go around the group and give each person a moment to introduce him or herself. We will go by first names only. In particular, please tell me:

- How long you lived in Davidson County?

### **Community Health Issues**

First, let's talk about quality of life in your community. By community, we mean your friends, neighbors, family, coworkers, and other people you have contact with on a regular basis. I am going to start by asking you about broad issues.

1. When I say "quality of life" what do you think about? How would you define "quality of life"?
2. Thinking about this shared definition, what are the top three things you believe you would improve QOL in your community?
3. What changes have you noticed in QOL for those who live in Davidson County?
4. What do you think are your community's strongest assets?
5. What are the obstacles or challenges within your community?
6. If you had a magic wand, what top initiatives would you implement in your community?
7. Was there anything you wanted to discuss today that we didn't cover?
8. Do you have any questions for us?

Those are all my questions. Thank you for your participation. Your feedback is very valuable to us.

## F. ONLINE COMMUNITY SURVEY

### CHNA Intercept Survey (Davidson)

Page 1 of 3

Metro Public Health Department, Saint Thomas Health, and Vanderbilt University Medical Center are working together on the 2019 Community Health Assessment to determine what people think or feel about important issues in their community.

We are conducting this survey which will help us ensure we collect first-hand information from community members. The information provided is completely voluntary and anonymous.

Thank you!

Answering this survey is voluntary. You may exit the survey at any time without penalty. You are free to decline to answer any particular question you do not wish to answer for any reason. We will keep your answers completely anonymous. Your name and other identifiers will never be associated with your answers. Completing the survey should take about 5 minutes.

- Yes  
 No

Please check "yes" to show that you have read this statement and agree to participate.

\*\*If you do not wish to participate in this survey, you can exit the web page now\*\*

Are you 18 years of age or over?  Yes  No

Do you live in Davidson County?  Yes  No



**Map Notes:**  
Created by the Division of Epidemiology, MPH D  
To visualize Sampling Zones for the 2018 Metro  
Community Health and Evidence Survey.  
The figure inside each zone represents its population.

**Data Source:**  
Data Source provided by Metro Planning Department.  
2018 ACS 5 Year population estimates - 85-G-000A.

Based on the image above, in which area of the county do you live?

- North (green)  
 East (yellow)  
 West (pink)  
 South West (dark brown)  
 South East (light brown)  
 Nashville Promise Zone (blue)  
 Don't know

What do you love about your neighborhood?

(Please tell us about your neighborhood and communities' assets and strengths.)

\_\_\_\_\_

What keeps you up at night?

(Please tell us about your top concerns in the community.)

\_\_\_\_\_

What do you hope for the next generation?

(What would you like to see your community focus on in the future?)

\_\_\_\_\_

---

What is your zip code?

---

Age  18-25  
 26-39  
 40-64  
 65+

---

Gender  Male  
 Female  
 Other

---

Please specify:

---

Are you Hispanic, Latino/a, or of Spanish Origin?  Yes  
 No

---

Which of the following would you say is your race?  
(check all that apply)

- White
- Black or African American
- American Indian or Alaska Native
- Asian
- Pacific Islander
- Other

---

Please Specify:

---

Was there anything else you wanted to share?

---

## G. Community Health Resources

Davidson County offers hundreds of different resources and services for those in need. In lieu of listing them all, multiple community partners work together to provide an online navigation portal (Where to Turn in Nashville) to easily provide access to a specific need. This guide is updated annually.

Where to Turn in Nashville is graciously developed by Open Table Nashville and has many community sponsors. While the portal is comprehensive, it is not an all-inclusive list, nor is it a guarantee of services. It is intended to be a guide to provide helpful information to anyone living or visiting Davidson County.

Categories of resources include but are not limited to:

- Advocacy
- Clothing, Day Shelters, Showers
- Education
- Employment
- Food
- Formerly Incarcerated
- Housing
- Immigrant/Refugee Services
- Legal Services
- Medical
- Pets
- Phones
- Social Services
- Transportation
- Veteran's Services
- Youth and Families and
- Surrounding Counties' resources (Cheatham, Dickson, Montgomery, Robertson, Rutherford, Sumner, Williamson, and Wilson)

This link to the full list can be found at:

[Resources - Where to Turn in Nashville](#)

## **H. Evaluation of Impact of Actions Taken to Address Issues Identified in 2015-2019 Healthy Nashville Community Health Improvement Plan (CHIP)**

STRATEGIC ISSUE Identified in Prior CHA and Addressed in Community Health Improvement Plan (CHIP)	ADVANCE HEALTH EQUITY	
ACTIONS PROPOSED to Address Strategic Issue	STATUS OF ACTION	RESULTS
<b>GOAL 1:</b> Develop better systems to support all individuals to achieve their optimum level of wellness		
<b>Objective 1.1</b> Beginning in 2015 and on-going, develop and implement ways to increase accessibility of community-based services through enhanced coordination and cross-training among providers, improved customer orientation to services, and Safety Net navigation support.	In Progress	December 31, 2017 <ul style="list-style-type: none"> <li>• Met monthly with SNC</li> <li>• Built and launched “My Health Care Home” website to assist patients with accessing a medical home.</li> <li>• Obtained translations of My Health Care Home site for 8 additional languages.</li> <li>• Held two patient and community advisory council meetings</li> <li>• Community and patient advisory councils met quarterly</li> <li>• Based on advisory council work - identified health and hunger as a priority and held a summit meeting in partnership with Second Harvest Food Bank</li> <li>• Based on recommendation from advisory councils and leadership, undertook a Pharmacy assessment aimed at identifying ways to increase access.</li> <li>• 2016 Demographic data collection for safety net clinics is complete.</li> <li>• Analytics for website initiated</li> </ul>
<b>Objective 1.2:</b> By 2019, present policy recommendations for advancing economic policies that promote health equity to a minimum of three influential bodies (e.g. Nashville Chamber of Commerce).	In Progress	June 2019 Met with Nashville Chamber; did not get a lot of traction on this. Much of this work is now folded in to efforts related to the seeds of equity training.
<b>GOAL 2:</b> Ensure a strategic focus on communities at greatest risk for health inequities		
<b>Objective 2.1:</b> By 2015, research and draft state of health equity and social determinants of health in Nashville report to be updated bi-annually.	Completed.	December 31, 2016 <ul style="list-style-type: none"> <li>• Produced the <i>Health Equity in Nashville</i> report</li> <li>• Produced the <i>Health Equity Recommendations for Nashville</i> report</li> </ul>
<b>Objective 2.2:</b> By 2015, convene community partners to launch the state of health equity and social determinants of health in Nashville report at the 6th annual Healthy Nashville Summit.	Completed	This is the 6th annual Summit, rebranded from the HEAL Summit to the Healthy Nashville Summit. The focus for the 6th annual Healthy Nashville Summit will be health equity. Health equity was identified as a part of Nashville’s CHA and CHIP process as the top strategic priority. Additionally, health equity was identified as a priority by MPHD’s internal strategic planning process. In response to both of those plans, the division of Epidemiology will be leading the development of a bi-annual state of health equity and social determinants of health in Nashville report, which will be launched at the Healthy Nashville Summit. The summit will give an opportunity for us to begin a conversation in Nashville around health equity.

		<p>The recommendations in Health Equity Recommendations Report were developed from discussions that took place during the 2015 Health Equity Summit, hosted by the Metro Nashville Public Health Department. The summit focused specifically on the issue of health equity in Nashville, and was held in conjunction with the release of the Health Equity in Nashville report. Health equity was identified as a part of Nashville’s Community Health Assessment and Community Health Improvement Plan as the top strategic priority. Additionally, health equity was identified as a priority by the health department’s internal strategic planning process. The 2015 Health Equity Summit was held on <b>June 5, 2015</b>. The event was free and open to the public and was attended by 133 individuals representing a broad spectrum of local organizations from both the health and non-health sectors. The summit began with a panel of local leaders who led discussions on furthering health equity in Nashville. The panel included Ms. Brenda Perez, Dr. Joseph Webb, and Reverend Edwin Sanders, and was moderated by Tene Franklin. Following the panel, summit attendees participated in facilitated small group discussions focused on developing recommendations for moving toward health equity in Nashville.</p> <p>Using the Health Equity in Nashville report as a guide, the small groups discussed, and recorded their answers to, the following questions:</p> <ol style="list-style-type: none"> <li>1. What is the definition of health equity in Nashville?</li> <li>2. What areas are missing from the report that needs to be addressed?</li> <li>3. What are the priorities we need to set in Nashville when it comes to health equity, based on the report?</li> <li>4. What are specific policies or programs we can implement over time to address these inequities?</li> <li>5. Are there any local programs or policies that are successful in addressing health inequities that could be easily replicated?</li> </ol> <p>The process for developing recommendations was collaborative in order to utilize the range of expertise and perspectives of summit attendees. This approach acknowledges that health equity goals and strategies are not the exclusive domain of public health, and can only be furthered through work in multiple sectors throughout our community. For results of the discussions please read the Recommendations Report.</p>
<p><b>Objective 2.3:</b> By 2016, disseminate position statement on health benefits of mixed-income housing to Nashville community through a minimum of three mediums.</p> <ul style="list-style-type: none"> <li>• <b>Sub-Objective 2.3.1:</b> By 2015, review the health</li> </ul>	<p>Completed</p>	<p>Health Equity Workgroup and MPHD Policy staff constructed a position statement on the health benefits of mixed-income housing. Position statement was shared with Metro Planning Commission, Metro Board of Health and Metro Council in December 2015.</p>

<p>benefits of mixed-income housing to inform Healthy Nashville Leadership Council position statement.</p>		<p>Metro Board of Health discussed and endorsed the position statement at the January 2016 Board meeting. The HNLC Chair and Vice Chair spoke to the Metro Council Ad Hoc Committee on Housing regarding the HNLC position statement in January 2016 prior to the vote on the Inclusionary Zoning Ordinance.</p>
<p><b>Objective 2.4:</b> By 2019, increase from baseline the number of Metro departments considering health equity in their policies and processes.</p> <ul style="list-style-type: none"> <li>• <b>Sub-Objective 2.4.1:</b> By 2016, add health equity as a component of HiAP efforts, highlighting opportunities for Metro agencies to consider health equity in their policies and processes.</li> </ul>	<p>In progress</p>	<ul style="list-style-type: none"> <li>• Metro HiAP structure is developed and in place <ul style="list-style-type: none"> <li>o Leadership Roundtable (LRT) of Metro department heads meets quarterly</li> <li>o Departmental Coordinators meets monthly and takes on work recommended by the LRT and recommends adoption by LRT</li> <li>o Steering Committee of MPHD staff meets monthly to plan, promote collaboration and education activities</li> </ul> </li> <li>• Online survey conducted of all participants in the HiAP initiative. Responses were confidential. 20 responses were gathered representing 12 of the 14 participating agencies.</li> <li>• The survey had only one main question and two follow up questions related to health equity: <ul style="list-style-type: none"> <li>o Has your agency created any new protocols in the past year that are used for considering health or health equity in your decision making? Response: 8 yes, 11 No; See pg. 18 of report</li> <li>o How many new protocols? Response: 2 report 1, 2 report 4 or more; see pg. 18 of report</li> <li>o Do you believe this was a result of your agency's participation in the HIAP initiative? Response: 5 Yes, 1 No, 2 Unsure; See pg. 18 of report.</li> </ul> </li> </ul>
<p><b>Objective 2.5:</b> By 2019, a minimum of five decision making bodies (e.g. Metro Council, Metro Boards, Metro Departments) will adopt equity impact review tool for decision-making.</p> <ul style="list-style-type: none"> <li>• <b>Sub-Objective 2.5.1:</b> By 2017, research, identify and develop an implementation plan for an equity impact review tool, which will be used to describe impacts of proposed policies and programs on historic patterns of inequity.</li> </ul>	<p>In Progress</p>	<p>December 2015</p> <ul style="list-style-type: none"> <li>• Equity Impact Review Tool from Seattle---King County identified</li> <li>• Tool shared with MPHD HiAP committee for review</li> <li>• Potential use of tool incorporated into RWJF grant proposal written in Collaboration with Metro Development &amp; Housing Agency (MDHA)</li> </ul>
<p><b>Objective 2.6:</b> By 2019, identify and conduct a minimum of five educational activities related to addressing health inequities.</p> <ul style="list-style-type: none"> <li>• <b>Sub-Objective 2.6.1:</b> By December 2019, develop and conduct Health Equity training with five Nashville organizations or entities, including the HNLC.</li> <li>• <b>Sub-Objective 2.6.2:</b> By December 2019, create a plan for dissemination of the Health Equity One-Pager and other Health Equity resources for non-profit organizations, associations,</li> </ul>	<p>In Progress</p>	<p>2.6.1 Health Equity Workgroup created a "Seeds of Equity" training and have trained 5 organizations and approximately 175 individuals since April 2019 and have had several requests for additional training.</p> <p>2.6.2. Health Equity Workgroup finalized the one-pager which is a companion tool that is provided as part of the Seeds of Equity training.</p>

Metro government and businesses.		
<p><b>Objective 2.7:</b> Strengthen capacity and advance equity for minority-led, emerging non-profit organizations that are on the front lines of promoting health equity and well-being in vulnerable communities.</p> <ul style="list-style-type: none"> <li><b>Sub-Objective 2.7.1:</b> Coordinate existing efforts related to capacity building for minority-led, emerging, community-based non-profit organizations.</li> </ul>	In Progress	<p>September 2019</p> <ul style="list-style-type: none"> <li>Hosted two listening sessions with 12 non-profit organizations to gather feedback re: focus areas/missions, defining success, and barriers to operate at full capacity. The second listening session was to ensure we accurately captured their thoughts and prioritize action steps.</li> <li>Host a meeting with potential local funders/supporters to discuss findings of listening sessions and potential solutions/strategies/efforts to build the capacity of the organizations participating in the collaborative</li> <li>Ideas from the funders meeting have been further discussed and we have begun developing proposals for a pilot project. The pilot will include a selection process to determine up to two (2) organizations to be supported by a shared program manager to assist with leadership development, fundraising, and sustainability. The proposal that we have developed to funders for this project also includes a drafted scope of work for the program manager and the RFP that will be sent to organizations to submit applications to participate in the pilot.</li> <li>Regular communication with members of the collaborative to share opportunities such as funding, technical assistance, workshops, etc.</li> <li>Reviewing literature about other capacity building efforts</li> <li>Reviewing existing measurement tools for capacity building efforts-not a lot of existing literature/models for this type of capacity-building work</li> </ul> <p>Lessons Learned:</p> <ul style="list-style-type: none"> <li>Local funders are open to this conversation and willing to discuss ways to address barriers/issues that came up in the listening sessions</li> <li>It is imperative to maintain trust with organizations and follow through- "Do what you said you would do."</li> <li>It is beneficial to leverage with existing community organizations.</li> </ul>
<b>GOAL 3:</b> Increase active transportation options and utilization		
<p><b>Objective 3.1:</b> Beginning in 2015 and ongoing, convene partners to promote the safe use of bicycles in Nashville.</p>	In Progress	<p>December 2015</p> <ul style="list-style-type: none"> <li>Met with Executive Director of Walk Bike Nashville, staff of YMCA, Tennessee Department of Health Commissioner's Fellow in Public Health</li> <li>Walk Bike Nashville hosting Bicycle Friendly Business forums for businesses interested in</li> </ul>

		applying for certification
<b>Objective 3.2:</b> By 2016, develop and present policy recommendations promoting active transportation options to Metro Council, Board of Health and other policy-making bodies as appropriate.	In Progress	<p>June 2017</p> <ul style="list-style-type: none"> <li>• Meetings seeking approval for a bike survey at Vanderbilt</li> <li>• Employee surveys at Nashville General and TSU</li> <li>• Agreement to merge Bike TO VU survey with Future VU survey</li> <li>• Working with HG Hill Realty on alternatives to automobile to free up parking spaces at developments</li> </ul>
<b>Objective 3.3:</b> By 2017, provide hands-on training on the use of public transportation in Nashville to a minimum of ten Metro agencies.	In progress	<p>April 18, 2019 – Fulton Campus Travel Training. WeGo and Nashville Connector held a travel training for Metro staff on the Fulton Campus. Topics included how to use the bus and train, the EasyRide program, and the Emergency Ride Home program. 24 people attended from the following departments: Planning, Finance, General Services, Nashville Fire Department, Water Services, ITS.</p> <p>October 24, 2019 – Metro Public Health Travel Training. WeGo and Nashville Connector held a travel training for Metro Public Health staff at the Lentz Public Health Center. Topics included how to use the bus and train, the EasyRide program, the Emergency Ride Home program, and a tour of a WeGo bus. 10 people attended.</p> <p>General Comments: Metro staff who attended were eager to learn more about taking transit. Some were prompted to sign up for their EasyRide pass for the first time. Many were not aware of the Emergency Ride Home program until these trainings.</p> <p>MetroConnect – General Services had three WeGo Tours as part of the Metro Connect program, for Metro employees. The tours took place on 10/30/19, 11/19/19, and 12/4/19 (planned). The tours involved a ride on a WeGo bus and a visit to WeGo Central.</p>
<b>Objective 3.4:</b> By 2017, provide at least three education activities on the safe use of bicycles in Nashville.	In Progress	<p>June 2016</p> <p>Walk Bike University:</p> <ul style="list-style-type: none"> <li>• Walk Bike University is an education initiative designed and implemented by Walk Bike Nashville to give residents of Music City an opportunity to increase their walking and biking knowledge and skills, engage with opportunities to be physically active, and represent our mission to make Nashville more walkable, bikeable, and livable. Walk Bike University offers a variety of workshops throughout the year, ranging from the very basics of how to ride a bike to commuting workshops and policy workshops.</li> </ul> <p>In January-June of 2016, Walk Bike Nashville hosted a</p>

		<p>range of courses that included:</p> <ul style="list-style-type: none"> <li>• Adult Learn to Ride for complete beginners</li> <li>• City Cycling 101, an in classroom course on traffic skills and safety</li> <li>• City Cycling 201, an on-road course building on lessons from City Cycling 101</li> <li>• MTA Bus Operator Trainer Class for MTA Trainers</li> <li>• Cold Weather Gear Class</li> <li>• “Worst Day to Ride” Ride</li> <li>• Tour de Nash Prep Classes, in preparation for the 12th Annual Tour de Nash on May 21</li> <li>• Beginner Greenway Rides</li> <li>• Policy Ride</li> <li>• Ambassador Training</li> <li>• Workplace Lunch and Learn, for workplaces interested in promoting bike commuting</li> </ul> <p>Instructor Certification</p> <ul style="list-style-type: none"> <li>• As part of Walk Bike University, in 2016 Walk Bike Nashville hosted our second League of American Bicyclists Bicycle Instructor Certification. The League Certified Instructors (LCIs) must take two classes in preparation for a 20+ certification course. Not only do the instructors learn about rules of the road and safety techniques, but the course also heavily emphasizes the skills need to instruct people of all bike riding skills and confidence levels how to safely navigate our streets.</li> <li>• In March 2016 we had 8 instructors receive certification. The instructors will assist with the Walk Bike University Classes, bike rodeos, and workplace lunch and learns.</li> </ul> <p>Safe Routes to Schools</p> <ul style="list-style-type: none"> <li>• This spring Walk Bike Nashville worked with Lockland Elementary School to host bike rodeos during PE. These bike rodeos gave around 300 students basic bike safety skills.</li> <li>• In addition Walk Bike Nashville hosted Nashville’s second Walk &amp; Roll to School Day on Wednesday, May 11. Approximately 2,500 students were expected to participate. 300 children, teachers, and family members participated at our spotlight school – Fall-Hamilton EOS – joined Mayor Megan Barry and Councilmember Sledge in an assembly at school, weather was a concern and the event was moved indoors.</li> </ul>
<p><b>Objective 3.5:</b> By 2019, meet with top ten employers in Nashville to learn about the barriers to the use of alternatives to single occupancy automobile travel and to promote the physical and environmental health benefits of these alternatives.</p>	<p>In Progress</p>	<p>December 2017</p> <ul style="list-style-type: none"> <li>• Meetings seeking approval for a bike survey at Vanderbilt</li> <li>• Employee surveys at Nashville General and TSU</li> <li>• Agreement to merge Bike TOO VU survey with Future VU survey</li> <li>• Working with HG Hill Realty on alternatives to</li> </ul>

		automobile to free up parking spaces at developments
<b>GOAL 4: Improve and protect the quality of air, land and water</b>		
<p><b>Objective 4.1:</b> By 2017, begin implementation of plan for monitoring air quality impacts on vulnerable populations. Monitoring will be on-going.</p> <ul style="list-style-type: none"> <li>• <b>Sub-Objective 4.1.1:</b> By 2016, develop data collection/analysis plan for indoor air quality (e.g. radon) in Metro Government owned buildings.</li> </ul>	In Progress	<p>June 2016 4.1.1 - Preliminary activities and research needed to achieve objectives are ongoing</p> <p>June 2019</p> <ul style="list-style-type: none"> <li>• Conduct radon testing in all Metro-owned building, including public school buildings, testing building at least once every five years.</li> <li>• Report test results to the Metro agency responsible for maintenance of the Metro-owned buildings.</li> <li>• Consult with and monitor progress of any radon remediation activities performed and retest to confirm reductions in concentrations.</li> <li>• Currently on schedule with conducting radon testing in 20% of Metro-owned buildings each year and tracking results.</li> <li>• Data for Regulation 9 (requirements for radon testing) and test results for monitoring year 2018 are on the website.</li> </ul> <p>Lessons Learned Plan well in advance. Must do schools testing when children are not present in the buildings.</p>
<p><b>Objective 4.2:</b> By 2018, develop and present regulatory, policy and systems change recommendations to improve and protect the quality of air, land and water to appropriate decision-making bodies.</p> <ul style="list-style-type: none"> <li>• <b>Sub-Objective 4.2.1:</b> By 2015, research environmental benefits of vanpools, carpools, and telecommuting.</li> <li>• <b>Sub-Objective 4.2.2:</b> By 2017, research and prioritize best practices for improving and protecting the quality of air, land and water in similarly sized urban settings and compare with current regulations.</li> </ul>	<p>In Progress</p> <p>Complete</p> <p>In Progress</p>	<p>December 2015 – Preliminary activities and research needed to achieve objectives are ongoing. Staff is pulling together a team with representatives from Metro and State Agencies and NGOs. We are drafting a letter to send out to potential partners. The plan is to have first meeting by March 2016.</p> <p>January 2018 <b>4.2.1</b> MPHD Epi staff published the impact statement “How Transportation Impacts Our Health” Research brief completed by John Vick, PhD for MPHD. Brief provide the research evidence for the relationship between health and transit use and access. Brief was shared with the HNLC Active Transportation workgroup, the full HNLC and posted on healthynashville.org</p> <p>June 2019 <b>4.2.2</b> The Tennessee Climate Network (TNCN) is a network of professionals across all sectors in Tennessee established to share resources, research, and best practices for responding to and reducing the impact of climate change in the region. The TNCN offers an opportunity for professionals to connect and enhance the effectiveness of their work on climate change.</p>

		<p>Building the TNCN aims to elevate the work professionals in Tennessee are already doing around climate change. By expanding our networks, sharing information and best practices, and broadening the scope of our work, we can work together to change the narrative around climate change and accomplish systems-level resilience to climate change in Tennessee. Collectively, participants in the Tennessee Climate Network commit to:</p> <ol style="list-style-type: none"> <li>1.(In progress) Build the Network’s operations and infrastructure;</li> <li>2.(In progress) Recruit and grow an inclusive and effective Network;</li> <li>3.(In progress) Network with each other and establish comprehensive communication mechanisms;</li> <li>4.(In progress) Support advocacy efforts for government policy concerned with the climate;</li> <li>5.(Not in progress) Educate the public and promote community outreach to reduce the impact of climate change;</li> <li>6.(Not in progress) Host events to strengthen the Network and increase visibility;</li> <li>7.(Not in progress) And evaluate the Network and its impact.</li> </ol> <p>The TNCN has gained considerable support and momentum in a short period of time, which demonstrates the need for such a network. In May 2019 a breakfast meeting was held to provide professionals currently working on climate issues in Tennessee the opportunity to give informal feedback regarding the new Network. Attendees were asked “How could a Climate Network benefit your work?” and from the discussion it was clear that there is a desire among professionals for a coordinated approach to addressing climate change in our region. Data and feedback collected from this event can be found in the attached informal report TNCN Initial Feedback Summary.</p> <p>Next step was a consensus workshop in August 2019 to identify areas of interest and objectives for the new Network. The discussion revolved around the question “What can Network participants commit to doing to meet the need for coordinated and effective work on climate change issues in Tennessee?” Attendees were asked to consider actions the TNCN and its members could take that would enable the Network to collectively work to reduce the impact of climate change in Tennessee. The results of the consensus workshop are summarized in the attached PDF TNCN Consensus Workshop Results. This workshop utilized meeting spaces and Technology of Participation (ToP) trained facilitators provided by MPHD.</p> <p>After the first consensus workshop, an ad-hoc governance group was convened, which met four times from September-October 2019. This ad-hoc governance</p>
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		<p>group was tasked with defining the Network’s levels of engagement, committee/workgroup structure, meeting frequency, and internal communication strategies. The ad-hoc governance group has drafted a proposal for the structure of the TNCN and will present it for comment and adoption in November at a second consensus workshop.</p> <p>Over the next few months, the TNCN plans to adopt a structure, craft a mission statement, and implement communication and recruitment strategies to grow the Network. A TNCN inaugural meeting and official launch will be held for all interested professionals to attend in Spring 2020.</p> <p>So far, participation in the planning efforts for the Tennessee Climate Network has been voluntary and spread by word of mouth. General outreach to notify professionals of the new Network and the opportunity to be involved in the planning process has been conducted via e-mail. The Climate Network is open to all Tennessee professionals working on climate change in some capacity, and there will be various levels of engagement for members as the Network continues to develop and grow. The Network is committed to cultivating a diverse and inclusive member base across all sectors, disciplines, communities, and geographical areas in Tennessee.</p>
<p><b>Objective 4.3:</b> By 2018, submit report on air quality impacts on vulnerable populations with recommended interventions to Board of Health and other relevant decision-making bodies.</p>	In Progress	<p>Rather than identifying vulnerable populations and investigating air quality impacts on each, MPHD evaluates the sources of pollution and historic meteorological patterns to identify locations with the potential for the highest concentrations. By monitoring in these specific areas and ensuring that concentrations are within acceptable health-based standards, we can be reasonably assured that all vulnerable populations are protected.</p>
<p><b>Objective 4.4:</b> By 2019, Present environmental educational materials a minimum of 10 times.</p> <ul style="list-style-type: none"> <li>• <b>Sub-Objective: 4.4.1:</b> Develop education campaign aimed at educating the community about protecting and improving the environment.</li> </ul>	In progress	<ul style="list-style-type: none"> <li>• Nashville Earth Day Celebration 2015, 2016, 2017, 2018, 2019</li> <li>• Tennessee Climate Network organization 2019</li> </ul>
<p><b>GOAL 5:</b> Provide individuals and families with the support necessary to maintain positive mental well-being</p>		
<p><b>Objective 5.1:</b> By 2017, increase employee understanding of and use of EAP program from baseline and continue to increase every two years.</p> <ul style="list-style-type: none"> <li>• <b>Sub-Objective 5.1.1:</b> By 2015, Integrate mental wellness and promotion of EAP into Metro employee wellness program(s), including</li> </ul>	Complete	<p><b>5.1.1 December 2015</b></p> <p>Metro Government Employee Life Balance contract with Deer Oaks link is now available on the intranet site Inside Metro under the HR portion of the site. Monthly newsletters are created by the contractor which is shared with the Metro departments for employee use.</p>

<p>content in Metro-wide Intranet server, Inside Metro.</p> <ul style="list-style-type: none"> <li>• <b>Sub-Objective 5.1.2:</b> By 2015, integrate employee wellness activities into annual National Public Health Week.</li> </ul>		<p>One newsletter is specifically for Supervisors and the other is for general employees. Both are shared electronically with the appropriate employee base. Newsletters are also available on the contractor website.</p> <p><b>5.1.2 Public Health Week April 2015</b></p> <ul style="list-style-type: none"> <li>•Opening ceremonies with Dr. Paul and other prominent community leaders</li> <li>•Media blitz to invite the community to Lentz campus</li> <li>•Showcase Lentz building – walking tracks, MACC/DART trailer, B-Cycle demo, etc.</li> <li>•Encourage community members to take the pledge – “Healthy Me” (individuals) or “Healthy We” (groups)</li> <li>•Public health divisional displays in the lobby for community members</li> <li>•Outdoor activities including walking, horse shoe contests, and cornhole.</li> <li>•Lunch and Learn opportunity with Public Health Emergency Preparedness director, Rachel Majors</li> <li>•Lunch and Learn opportunity with Dr. Bill Paul: “Building a Culture of Health in Nashville”</li> <li>•Healthy Food Recipe Contest</li> <li>•Employee Celebration/Thank You Luncheon</li> </ul>
<p><b>Objective 5.2:</b> By 2018, present policy recommendations for increasing access to mental health resources, including employee assistance programs (EAP), regardless of economic status, to at least three decision making bodies.</p>	<p>In progress</p>	<p>June 2018</p> <p>In late 2017, Julie Thacker and Amanda Ables developed an EAP project for an incoming intern, linked to the completion of Objective 5.2. The outline of the project is below:</p> <ol style="list-style-type: none"> <li>I. Review of Literature</li> <li>II. Data Analysis</li> <li>III. Recommendations – Present to Healthy Nashville Leadership Council/HiAP/Metro HR/LRT</li> </ol> <p>The fall 2017/spring 2018 intern for Community Development and Planning/Behavioral Health was unable to complete sections 2 and 3 of the outlined project (data analysis + recommendations).</p> <p>Additionally, Metro HR is not currently able to stratify all requested data, including specific departmental information that could reveal the identity of an employee (e.g. if the department only had 5-10 employees, more specific information about the employee could reveal his/her identity). MPH staff may request additional assistance from the Healthy Nashville Leadership Council’s working group on Mental and Emotional Health, to advance the literature review into analysis, based on the data gathered from Metro HR.</p> <p>No additional work completed on this Objective.</p>

<p><b>Objective 5.3:</b> By 2019, a minimum of five educational activities supporting positive parenting and positive mental well-being will be delivered to Local Public Health System partners and the community.</p> <ul style="list-style-type: none"> <li>• <b>Sub-Objective 5.3.1:</b> Starting in 2015, coalesce Alignment Nashville wellness committees to expand Alignment Nashville Behavioral Health resource guide to support mental well-being, including the connection between good nutrition and physical activity and improved mental well-being.</li> <li>• <b>Sub-Objective 5.3.2:</b> By 2016, include wellness activities in student and adult tracks of annual Social Emotional Learning Conference.</li> </ul>	<p>Complete</p>	<p>June 2017</p> <p><b>5.3</b> The Family Center provides Positive Parenting classes at the Family Center, through partnerships with the Davidson County Sherriff’s Office (DCSO) and partnerships with other community agencies focused on substance abuse recovery. Through the Positive Parenting classes 265 parents were educated at DCSO facilities, 55 parents educated at Family Center, 58 parents educated at other community agencies focused on substance abuse recovery, and 509 individuals were educated at <b>18 presentations</b> provided for the general community for the period January 1, 2017 – June 30, 2017.</p> <p>Prevent Child Abuse Tennessee (PCAT) provides home based parenting programming. PCAT served 422 families in their home based parenting programs for the period January 1, 2017 – June 30, 2017.</p> <p><b>5.3.1</b> There are two key strategies that name the work of the Behavioral Health/SEL Team.</p> <p>(1) Culture and Climate: Establish, communicate, and implement consistent and equitable definitions, practices, programs, and data reports to improve school culture and climate, students’ social and emotional learning, adult understanding and use of practice changes, and student experiences.</p> <p>(2) Multi-Tiered Systems of Supports (MTSS) Establish and implement goals, objectives, and steps for consistently and fairly providing students with the support they need to learn and behave in a learning setting—including extracurricular and in-school programs, disaggregated monitoring data, staff training, and accountabilities. The ACE's work will be a large part of this MTSS system.</p> <p>4. At this time the HEAL team has not been revived, but we see opportunity within these key Behavioral Health/SEL strategies to include these tactics back into the team’s conversations and tactical planning.</p> <p><b>5.3.2</b> On June 28-29, 2016 the Behavioral Health/SEL held their 7th Annual Social and Emotional Conference held at Cane Ridge High School. This was the conference's first year to span over two full days. There were two national keynote speakers, Tim Shriver, Co-Founder of CASEL (Collaborative for Academic Social and Emotional Learning) and Erin Beacham of the Anti-Defamation League speaking about Explicit Biases. There were several workshops presented at the conference around the topic area of ACES including Dr. Mary Crnabori of MNPS. There were over 800 attendees, exhibitors and</p>
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		presenters at this year's conference. An announcement was made that the 2018 conference would be the first National Conference for Social and Emotional Learning and the only national conference of its kind. Planning us already under way for that conference.
<b>Objective 5.4:</b> By 2019, increase public awareness of Mental Health Crisis Services Center (MHSC) as an ER alternative for 24/7 mental health urgent care.	In Progress	<p>August 1, 2019</p> <p>The Mental Health Cooperative (MHC) team has worked diligently since 2017 to increase the community awareness of 24/7 walk-in crisis services as an alternative to an ER.</p> <p>Activities included:</p> <ul style="list-style-type: none"> <li>• Development of a video to highlight the collaboration between MHC Crisis Services and Metro-Nashville Police Department</li> <li>• Enhancements to the MHC Website to provide information on the Crisis Treatment Center and directions on how to locate the CTC</li> <li>• Meetings with all MNP Precincts, Metro Schools, Juvenile Court, NAMI, Emergency Room personnel, University Counseling Centers, and other area social service agencies</li> <li>• Development and distribution of Crisis Cards that give the address, phone number, and directions to the Crisis Treatment Center</li> <li>• Promotional spots on local news stations</li> <li>• From FY 2017-FY2019, MHC has seen a 25% increase in walk-in assessments and a 112% increase in the number of individuals who have received 23 hour observation and treatment services. MHC believes the increase in these areas can be directly attributed to the effectiveness of the Outreach plan.</li> </ul>
<b>GOAL 6:</b> Promote positive parenting & violence free homes		
<b>Objective 6.1:</b> Starting in 2015, increase delivery of Adverse Childhood Experiences training to MPH public health staff and local public health system partners.	In Progress	<p>June 2019</p> <p>While this Objective was completed 6.30.16, additional activity is being reported for the period 7/1/2018 – 6/30/2019</p> <p>ACE trainings continue to be provided. A REDCap tracking log for ACE-focused trainings conducted by ACE Nashville organizations has been developed. 114 trainings with a total of 7288 attendees were logged in REDCap for the period July 1, 2018 – June 30, 2019.</p>
<b>Objective 6.2:</b> Starting in 2015, convene partners to begin planning the 2016 Healthy Nashville Summit to advance positive parenting and violence free homes in Nashville.	Complete	<p>December 2017</p> <p>The Healthy Nashville Summit Planning Committee engaged multiple organizations for the planning of this event for approximately 9 months;</p> <ul style="list-style-type: none"> <li>• 425 community members attended the Summit on 4/22/16, more than doubling the attendance of any</li> </ul>

		<p>other Healthy Nashville Summit held to date to learn about what ACEs are and how to foster resiliency in individuals, families, institutions, and more;</p> <ul style="list-style-type: none"> <li>• Engaged Dr. Thomas Freiden (CDC Director at the time) and Dr. Melissa Merrick as our lunch plenary, providing and advocating for the support of ACEs research and trauma-informed approaches in schools, health departments, social programs, and more;</li> <li>• Engaged Harvard’s Dr. David Williams as keynote speaker, where effectively addressed disparities in health across all populations – reflecting on the science of early childhood trauma;</li> <li>• Engaged new mayor’s office to provide the day’s “Call to Action,” providing even more attention to ACEs in our community;</li> <li>• Provided Summit attendees a flash drive with more practical information about ACEs, collective impact, trauma-informed care, intergenerational transmission of ACEs, best practices, and more; - ACE Nashville’s coalition grew significantly after this convening; this group of community organizations continues to grow, evolve and provide trauma-informed places and policies; this ends with a semi colon but there is no other info unless it just never got transferred for the original report</li> </ul>
<p><b>Objective 6.3:</b> By 2018, research, prioritize and present recommendations for addressing violence in homes to appropriate decision-making authorities.</p>	<p>In Progress</p>	<p>JUNE 2016</p> <ol style="list-style-type: none"> <li>1. All members of the Mental Health and Emotional Workgroup attended the ACE Nashville Quarterly Meeting (January 26, 2016) to combine our efforts relative to Objective 6.1.</li> <li>2. All members of the MH/E workgroup have joined one of the ACE Nashville workgroups except the Leadership Group, which was by invitation only. Workgroups joined-Trauma Informed Care; Parent and Community Engagement; Policy; Continuous Quality Improvement.</li> <li>3. Presentation on Positive Parenting given by Jennifer Martin, LMSW, Community Educator (January, 26, 2016) to MH/E workgroup.</li> <li>4. Mock Parenting Class given by Jennifer Martin, LMSW, Community Educator, The Family Center (March 22, 2016).</li> <li>5. On April 22, 2016 MH/E workgroup members attended the HNLC Summit that focused on ACEs.</li> <li>6. Each workgroup member has been attending the ACE Nashville workgroups.</li> </ol> <p>Outcome Measures: At the end of these activities the members of the workgroup can:</p> <ol style="list-style-type: none"> <li>1. Describe what is meant by Adverse Childhood</li> </ol>

		<p>Experience(s).</p> <ol style="list-style-type: none"> <li>2. Discuss the efforts of ACE Nashville and the Mental Health and Emotional Workgroup to join efforts.</li> <li>3. Define what Positive Parenting means.</li> <li>4. Name at least two ways taught in Positive Parenting that children respond to feelings.</li> <li>5. Discuss how poverty is highly associated with negative childhood experiences as described by Dr. Williams, keynote speaker at the HNLC Summit.</li> <li>6. Mental Health and Emotional work group members can discuss the ongoing work of their individual ACE Nashville workgroup.</li> </ol> <p>There was a desire to integrate HNLC workgroup efforts with ACE Nashville workgroups as it is easier to combine efforts than to work in silos.</p>
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